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Degree of Master of Science

The protection of the environment through criminal law in Croatia

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ABSTRACT OF THESIS submitted by:

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Environmental crimes are presenting a threat to the environment and to humans. The EU is prioritizing struggle against environmental crimes and thus by entering the EU, Croatia needs to establish the efficient enforcement of environmental legislation by using criminal law. Initial thesis research revealed that environmental crimes prosecution in Croatia is insufficient. This thesis aim to identify possible obstacles in the prosecution of environmental crimes in Croatia. Obstacles are established by interviewing relevant stakeholders; state and non-state subjects. While looking at the crime prosecution it is important to observe the whole system. The thesis is covering the whole state prosecution chain; detection, investigation, trial in front of the court as well as sanctions. Findings from interviews are combined with existing statistical data on environmental crimes in Croatia. Conducted quantitative and qualitative research revealed obstacles in the criminal enforcement of environmental regulations in Croatia. Obstacles are indentified throughout the whole prosecution system. Key obstacles are the low level of environmental awareness, the lack of budgetary and human resources. Listed is causing the insufficient recognition of environmental crimes, inefficient prosecution and inadequate imposed sanctions. During the interviews recommendations were indentified: the enhanced level of institution cooperation, trainings and education could raise the level of detection and the efficiency of prosecution. The adequate performance of each part of the prosecution "chain" is a key factor in ensuring the certainty, severity and the swiftness of the punishment and therefore deterrence against criminal activity.

Key words: environmental crime, environmental criminal law, criminal enforcement of environmental law, deterrence.

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List of abbreviations:

SA – The Croatian State Attorney Office

MENP – The Ministry of the Environmental and Nature Protection

CC – The Croatian Criminal Code

MS – European Union Member States

CITES - The Convention on International Trade in Endangered Species of Wild Fauna and Flora

I. INTRODUCTION:

1.1. Environmental crime background

Environmental crime is any breach of a national or international environmental law or convention adopted with a goal to ensure the conservation and sustainability of the environment, biodiversity or natural resources. Environmental crime is an act committed with intent or negligence that harms/endangers the environment and violates environmental laws (Elliott 2007). The most common global environmental crimes can be divided in five areas: illegal trade in wildlife, illegal logging and trade in stolen wood, illegal fishing, illicit trade in hazardous waste, smuggling of ozone depleting substances (UNEP 2012) which result in the negative effects of deforestation, a thinning ozone layer, loss of biodiversity, soil, water and air contamination, contribution to climate change etc. which are all causing ecosystem and human health problems (UNEP 2012). The effects of environmental crimes can also have global negative effects e.g. illegal activities that cause depletion of ozone layer (Wright 2011). Environmental crimes are often the result of organized crimes with the aim of making a profit and they often occur within permitted legal economic activities (Wright 2011). For example, a large ecological accident like the Mexico Golf oil spillage in 2010 is the case of an international corporation not respecting environmental regulations resulting in catastrophic ecological devastation and coastal communities' suffer. The Mexico Golf oil spillage was criminally prosecuted in order to express social condemnation and to deter future spills (Uhlmann 2011). Environmental offences do not "respect" state borders and often have transboundary consequences. Globally a rise in environmental crimes and the effects of such crimes has been detected (INTERPOL 2015) which is not surprising taking into consideration its enormous financial gain. According to the INTERPOL assessment the illegal trafficking of wild life have globally second highest illegal financial turnover, more lucrative is just drug trafficking (UN 2013).

At the international level, compliance with key international treaties is crucial. Nowadays there are international agreements protecting the environment from degradation, for example: conventions that deals with ocean pollution (Marpol, London Convention), The Convention on International Trade in Endangered Species (CITES), Basel Convention on the Control of Transboundary Movements of Hazardous Waste etc. Some of environmental international treaties contain criminal provisions but in general global environmental

protection through criminal law is focused on only particular forms of harm, it is fragmented and limited in scope (Megret 2010), and it does not have overarching global mandate, agreement or body that would prescribe or prosecute the most common global environmental crimes. There is still no universal global mechanism that would globally unify the struggle against the most common dangerous environmental crimes.

Inadequate global environmental crime policy results in a low risk of prosecution for environmental criminals (Wright 2011) which is connected with high profit with high incentives for committing environmental crimes, especially through organized crime. The UN has recognized environmental crimes as a serious global threat that is requiring more sophisticated and collaborative response from national authorities (UN 2013). In order to fight environmental crimes, states must strengthen the rule of law and adopt concrete steps: clearly defining illegal activities, imposing criminal penalties and strengthening enforcement mechanisms (EIA 2015). We may say that a large majority of environmental crimes have an international character and can have global consequences, thus adequate responses to environmental crimes can only be achieved by mutual cooperation of states.

As stated in Comte (2004), the European Union has recognized that in order to deal with the transboundary character of environmental threats, individual national efforts are not sufficient for the efficient protection of the environment. Also the protection of the environment through the administrative law based on incentive and advisory approach is not sufficient and thus protection of the environment through criminal law is needed for an adequate protection of the environment. The EU experience in fighting environmental threats has showed that there are large disparities in the definition of environmental crimes in the Member States (MS), that the implementation of environmental legislation is not satisfactory, the existing prosecution system shows large disparities when it comes to sanctions. In general, sanctions are not sufficiently strict and thus are not adequate to effectively protect the environment in the EU Member States (MS).

For those reasons, the EU has introduced transnational legal mechanisms in order to protect the environment in a more advanced way by adopting the Directive 2008/99/EC, in 2008, on the protection of the environment through criminal law. MS had the obligation to transpose it to its national legislation by 2010. By the Directive, the EU has set a goal to achieve a high level of environmental protection by prescribing minimum standards in protection of the environment with unifying MS legislation in the field of criminal offences against the environment, to ensure a minimum level of protection of the environment through criminal law throughout the EU. The Directive obliges Member States to treat environmental

crimes listed in the Directive as acts punishable by criminal law and to ensure that they are effectively sanctioned. Also it prescribes the criminal responsibility of legal persons for environmental crimes (2008/99/EC). The Directive does not prescribe a legal obligation to punish offenders in certain cases. Criminal sanctioning depends on the assessment of the facts by the competent authority or judge. That is way it is important that individual countries have sufficient administrative and judicial capacity in order to adequately implement the Directive; there may be significant differences in the way individual environmental threats are detected and prosecuted from state to state in EU. The goal of the Directive is harmonization the prosecution of criminal offences against the environment across the EU (2008/99/EC).

According to Eurojust(2014), currently, throughout Europe there is the lack of implementation data concerning threats, impacts, reports, prosecution and convictions related to environmental crime cases. The criminal enforcement of environmental regulations in the EU is diverse in expertise, institutional capacity and their co-operation which all results in different levels of environmental crimes detection. In the Eurojust report (2014) it is identified that numerous MS still do not have adequate experience in fighting environmental crimes. Even though the Directive 2008/99/EC is transposed and implemented in all Member States enforcement is still not harmonized.

The Republic of Croatia became the member of the EU in 2013. Member States, when transposing the Directive have to revise their criminal legislation, and introduce criminal offences and adequate criminal penalties related to environmental crimes from the Directive. Croatia has transposed DIR 2008/99/EC in the Croatian legislation through its Criminal Code which entered into force 1st January 2013. Alignment with the environmental *Acquis* is only the first step on the way to meeting the obligations of EU membership in the field of environmental protection. Croatia must also take all measures to establish efficient implementation structures, to bring administrative as well as judicial capacities up to the required level and to ensure effective enforcement of environmental law.

Croatia has a tradition of having criminal offences against the environment in its Criminal Code; the implementation of the Directive is an upgrade of its judicial system. But still, compared to other crimes, from the point of legal theory and judicial practice, environmental crimes are relatively new and there are still not enough comprehensive studies that would present the efficiency of environmental crime prosecution in Croatia.

The Implementation gap in the enforcement of environmental regulations has been recognized in Croatia in the assessments of international organizations, e.g. in the UN report it is stated that “the implementation gap of environmental regulations continues to represent a major

challenge“(UN 2014). Also inadequate and inefficient criminal enforcement has been reported by the Annual State Attorneys (SA) Report (SA 2010-2014) stating that the number of reported and prosecuted environmental crimes is lower than environmental crimes are manifesting in reality. The SA believe that environmental crimes are happening in reality to a much larger extent but because of the low level of public ecological awareness, "because of the low interest of the competent services and institutions whose task is to detect and report on these crimes.", and also for reasons that certain environmental crimes are still not perceived as environmental crimes the official opinion of the State Attorney Office is that environmental crimes are not prosecuted in their full optimal extent (SA 2013). In my thesis I will assess the efficiency of the enforcement of the Directive in Croatia and identify the obstacles for more efficient enforcement of environmental criminal law and provide recommendations for the improvement of the prosecution system of environmental crimes in Croatia through gathering statistical data and interacting with relevant stakeholders.

II. PROJECT AIMS AND OBJECTIVES

The aim of the thesis is to analyze the implementation of the EU Directive on the protection of the environment through criminal law (DIR 2008/99/EC) in Croatia. In order to achieve the aim, it is necessary to present the main features which way the directive is transposed in Croatian legislation. The practical implementation of the directive, the criminal enforcement of environmental legislation will be presented. The thesis focus is the efficiency of the criminal enforcement of environmental laws in Croatia. The phenomenology of environmental crimes in Croatia will be presented. Which will include the level of detection of environmental crimes, the amount and type of environmental crimes being prosecuted and the severity of sanctions being imposed in the cases of environmental crimes in Croatia?

In order to present the efficiency of enforcement system, the main environmental crime enforcement institutions, their duties and roles in prosecuting environmental crimes in Croatia with a focus on their institutional capacity to fight environmental crimes and the level of cooperation of relevant stakeholders in cases of environmental crimes will be presented. The views of relevant state institutions competent for environmental crimes prosecution and non-state subjects that are dealing with environmental protection (e.g. environmental NGOs, environmental journalist etc.) will be identified. Especially valuable will be their experience dealing with environmental crimes and their opinion on the ability of legal tools to deter

perpetrators. Through interviewee views, barriers for a more efficient criminal enforcement of environmental laws in Croatia will be identified. At the end of the thesis, recommendations for a more effective criminal enforcement of environmental laws in Croatia will be presented.

III. METHODOLOGY

In this chapter, I will present and justify my research methods which will be used in order to reach the thesis objectives and the aim. The design of the thesis is a single country study of the Republic of Croatia over a relatively short period of time of five years, from 2010 to 2014. The Single case study allows a comprehensive analysis (Bryman 2012) of the implementation of the EU Directive on the protection of the environment through criminal law in Croatia and can present important features about its nature. Every country has a different legal, administrative system, and the level and mode of enforcing laws varies. Every EU country has the freedom to adjust the Directive implementation toward its internal system as long as it provides the directive results (Vagliasindi 2015). The Uniqueness of enforcement within countries justifies single country case study.

3.1. Literature review

As a first step of the research, literature review will be done which will include the analysis of academic articles and research studies on global and EU perspective on environmental crimes. Also handbooks on criminal theory and the enforcement of environmental laws using criminal law will be covered in order to indentify characteristic of environmental crimes, to point out the importance of protecting environment with criminal law, to present crime deterrence theories and to highlight the importance of effective environmental crimes prosecution. Special emphasis will be given to academic literature and studies related to EU environmental law. Also literature that relates to environmental crimes in Croatia will be covered. Relevant Croatian regulations and academic literature are needed to be investigated in order to establish the powers, duties and the role of institutions in environmental crimes enforcement system and to properly design the research and establish adequate research sampling technique.

Several techniques and multiple sources of information will be used in order to indentify the level of criminal enforcement of environmental laws in Croatia with regard to implementation of the EU DIR 2008/99/EC. I will present through which legislation the

Directive 2008/99/EC was transposed into Croatian legislation and present main environmental crime enforcement institutions, their duties and roles Analyze of official reports and studies will be conducted, the analysis of available statistical data and interviews with relevant stakeholders will be conducted.

3.2. Existing statistical data research

I will use existing statistical data research (Neumann 2005) related to environmental crimes in Croatia and conduct secondary analysis of official statistical data (Bryman 2012). Specified procedure is not connected to high costs and it is suitable for short time frame research. Statistical data from official state institution reports and reports from international organizations on environmental crimes will be used in order to establish general framework and a guideline for further research. Statistical data relating to all phases of environmental criminal prosecution in Croatia: reported environmental crimes, criminal charges, environmental crimes prosecutions data and convictions data in Croatia will be gathered from official institutions web pages, through personal contacts during interviews and over emails and phone contacts. Special focus will be placed on sanctions set by court for criminal offences. Statistical data will be gathered from all relevant institutions for the prosecution of environmental crimes, primarily from the ministries that are competent for the protection of the nature and environment components. Statistic will be obtained also from prosecution bodies as the police, the State Attorney Office and criminal courts, also from the Croatian Bureau of Statistic. Listed statistical data will be used as a preparation material for interviews with stakeholders and as a background data for presenting thesis results. Relevant statistical data will be analyzed during period of five years, from 2010 till 2014. Specified period will be covering time period before Croatia has entered EU and the period after EU accession and the implementation of the Directive. Gathered statistic data will be analyzed and interpreted in order to establish the extent, structure and trend of environmental offences in Croatia and gain valuable information on the efficiency of the prosecution of environmental crimes in Croatia within five years of the specified period. Using statistic in quantitative research related to environmental crimes has limited results. Statistics on environmental crime is fragmented and incomplete, also partially not existing thus it is not reflecting the true state. Thus, other ways of research like qualitative social research needs to be engaged.

3.3. Interviews as a qualitative research method

The main thesis research and my original contribution will be findings collected by using interviews as a qualitative research method during the thesis research period from April till June 2015. I have chosen qualitative research because it is well suited for exploring social phenomena (Mack *et al*. 2005) and it allows investigating the issue of environmental crimes enforcement from the different perspectives of different stakeholders. The thesis qualitative research will include conducting interviews with relevant stakeholders from the area of criminal enforcement in Croatia in order to establish their point of view on the level of criminal enforcement of environmental laws in Croatia with regard to the implementation of the EU DIR 2008/99/EC. Also through interviews I would like to establish barriers regarding the criminal enforcement of environmental laws in Croatia and to indentify recommendations for more efficient prosecution of environmental crimes. Bryman (2012) is stating that by using qualitative research we can understands social world by using interpretation of direct participants, in this case the interpretations of enforcement officials. Thus it is necessary not just to observe legal mechanism for environmental protection in legislation and written studies but also to establish the point of view of officials directly involved in environmental crimes enforcement. Through interviews I am planning to explore correspondent's personal experience in the practical application of legal tools, their experience in cooperation with other stakeholders, obstacles that they stumble upon in their everyday work and their recommendations for enhancing the enforcement system.

3.3.1. Selection of interview participants

For the selection of interview participants I will start by using purposive sampling technique (Bryman 2012). Correspondents will be selected "based on a specific purpose rather than randomly'' (Teddlie and Tashakkori 2003) and according to the need of the study (Morse 1991), purposive sampling is useful when there is a limited number of people that have expertise in the area being researched (Creswell 2013). I have decided to use expert sampling as a type of purposive sampling as my research design, which is being used in order to gain knowledge from subjects that have particular expertise. Expert sampling is useful when there is lack of empirical data on the topic (Silverman 2013). In order to gather data and to conduct a valid research I need opinion of subjects with high level of expert knowledge from the field

of environmental crimes in Croatia. I have chosen expert sampling in order to enhance the understandings of thesis topic by selecting "information rich" case (Silverman 2013). Correspondents will be identified according to their competences and experience in prosecution system and expertise in the area of environmental crimes. For my research I have designed experts as stakeholder sampling (Bryman 2012). I have identified which are the main stakeholders; their roles and competence in environmental crimes enforcement

For my research I need to identify what term experts in environmental crimes mean. In this study experts are subjects that are dealing with environmental crimes that have many years of experience in dealing with environmental crimes as a part of their daily work. Experts would be state institutions officials, which are authorized for the enforcement of criminal offenses with known or demonstrable experience and expertise in the area. In the initial part of the research I have identified relevant state institutions with competence to fight environmental crimes in Croatia. I have contacted those institutions and by their assistance I have establish contacts with relevant experts. Respectively institutions have put me in contact with their officials who have knowledge and were available to conduct interviews. Also, as "thesis experts" I have included people that are non-state officials but have relevant experience in the topic, thus I have interviewed environmental NGOs, ecological journalists and academics in order to gain opinion that is not just from the state officials. By it I am covering a different type of experts and gaining the diversity of opinions.

I have interviewed 19 correspondents from different institutions. The interviewee sample is small which is the characteristic of purposive sampling (Teddlie and Yu 2007). Correspondents are mostly senior state officials whose duty and competence is directly relating to environmental crimes. Purposive sample is being used because it is suitable for picking a smaller number of correspondents that will yield the most information about a particular phenomenon (Teddlie and Yu 2007) and it leads to the greater depth of information from the smaller number of carefully selected cases. When designing research it is important for the design to provide a sample that will answer the research questions (Teddlie and Yu 2007) and for that it is important to have the right sample of correspondents to achieve representativeness, these techniques are used when the researcher wants to select a purposive sample that represents a broader group of cases as closely as possible (Teddlie and Yu 2007). So, even though the sample is small it is representative in a way that it cover the representatives of all relevant environmental crimes enforcement bodies within the Croatian prosecution system in order to cover all phases of environmental crimes prosecution in Croatia; from the initial detection, to the investigation of environmental crimes, prosecution in

the front of criminal court till the imposition of judgment. All those representatives from different bodies mutually cooperate within different stages of criminal procedure. By covering the whole criminal enforcement system I plan to cover environmental crimes topic from the different points of view, which also gives me a possibility of comparing their experiences.

The sample (correspondents) was selected before the beginning of the research. As an employee of the Environmental and Nature Protection in Zagreb, I have worked on an EU project that was dealing with enhancing implementation of the EU Directive in Croatia. As an initial research sample focal points from relevant Croatian institution that participated in the mentioned EU project were contacted. While conducting interviews, initial sample was expanded by using snowball technique (Bryman 2012) which referees to obtaining additional correspondents contacts from the initial correspondents during interviews. Snowball technique was used in a way that initial contacts guided me and helped me to establish contacts with other relevant correspondent (Bryman 2012). As the result of using combined purposive and snowball sample technique 19 correspondents have been interviewed from following state institutions that have the main role in prosecution of environmental crimes:

- The Ministry of Internal Affairs; the criminal police
- The Ministry of Environmental and Nature Protection (MENP),
- The Customs Administration, the Ministry of Finance;
- The Municipal Criminal Court in Zagreb;
- National Protection And Rescue Directorate (NPRD);
- The State Attorney's Office (SA).

From abovementioned institutions I have interviewed following state officials: environmental inspectors, lawyer working in legal service of MENP, nature protection inspectors, senior officials of the MENP, customs officials, police criminalist, municipal criminal court judge, State Attorney NP Deputies. Besides state institutions I have also interviewed few environmental NGOs in order to get opinion which is not only form the side of state institutions on the topic. I have interviewed NGOs Zelena Akcija from the city of Zagreb and Ekopan from the city of Karlovac. I have also posed questions to environmental journalist and academics from the Legal Faculty in Zagreb.

3.3.2. Semi-structured interviews

I have used semi-structured interviews (Bryman 2012). Correspondents were interview through formal interviews with a prior list of crucial questions that were covered during interview. The relatively unstructured nature of semi-structured interviews has capacity to provide insights into interviewees view on the subject topic (Bryman 2012). As part of semi-structured interviews open-ended questions are being used and discussions may diverge from initial questions, depending on the topic that correspondents have put emphasis on, the direction of individual interviews varied. A semi-structured interview starts with set list of question, but the sole interview process is flexible in a way that emphasis is put on interviewee understanding of issues and events (Bryman 2012). Semi-structured interviews are able to adapt to the individual correspondent by allowing informant the freedom to express their views in their own terms and can provide reliable, comparable qualitative data (Bernard 1988). According to Bernard (1998) during semi-structured interviews it is possible to adapt much more easily to the individual correspondents and to the situation on the spot, and are best to be used in situations when there are only one chance to interview someone. This was often a case in my research, because of busy working schedule of state officials and sometimes formal requirements to get interview approval from their superior.

Questions were created based on personal knowledge and analysis of the literature explored in the first research stage as well as on the useful information from prior interviews. Initial, starting questions were: „What is by your experience the level of the efficiency of environmental crimes enforcement in Croatia?" „What are major obstacles for efficient environmental crimes enforcement in Croatia?" What would be your recommendations for improving the efficiency of environmental crimes enforcement in Croatia?" „What could raise the level of deterrence from committing environmental crimes in Croatia?" Also during interview process I have developed extra, more precise, questions based on correspondent's individual roles and competence in enforcement system and based on gained findings during overall interviewing process. So, apart from initial identical questions customized approach is also applied relating to role of individual stakeholder in prosecuting system. If there were some uncertainties or need for extra information, additional questions could be asked over email.

Potential correspondents were contacted over email, by explaining them the purpose of the research, providing them the list of initial questions in order that they can prepare for the interview and asking them for interview term. Interviews were conducted mainly *face to*

face, for stakeholders with whom I was not able to interview personally, the questionnaire will be sent over email. Anonymity was provided to interviewees in order to provide them the greater freedom of expression. I have not used tape recording considering they might feel uncomfortable, but instead I have taken notes during interviews. Interviews lasted from 45 minutes till 2 hours, depends on amount of topic and availability of correspondents time. During interviews I have also managed to acquire some statistical data that were not available into the public sphere, e.g. statistical data on the conduct of Nature Protection Inspection. While presenting interview findings in the thesis interviews views have been translated from Croatian to English, and paraphrased in a way to keep the meanings of correspondents' opinions.

Qualitative research will focus on which way stakeholders perceive the enforcement of environmental crimes in Croatia and which way do they use legal tools in practice. While collecting data from interviews I will focus on narrative data which I plan to combine with obtained numerical statistical data in order to produce results and develop discussion and to identify enforcement obstacles, assess their relevance and ways to overcome obstacles in order to make enforcement more efficient.

3.4. Limitations

According to Bryman (2012) typical for criminal offences is statistical „dark figure", a gap between reported and unreported crimes which is especially high in cases of environmental crimes (White 2008). „Dark figure" in case of environmental crimes most often is being generated by non-detection, not reporting, or by not being a priority for investigation bodies (e.g. the Police), also violations are often not being adequately recognized as a criminal offences (Watson 2005).

Available official statistic regarding environmental crimes in Croatia is fragmented across different ministries. Also only the MENP is having legal obligation to publicly publish annual report on their work, while other ministries that deals with environment protection are not obliged to do it so they do not publish annual reports. While contacting other ministries trying to obtain statistical data on reported possible environmental crimes, they have not responded on multiple inquiries, also I did not have time to go into administrative procedure in order to obtain data. Available statistical data do not reflect the overall of the environmental crime in the observed period. There is only few environmental crime final judgment that are imposed according to the new Criminal Code. "New" cases are still in the investigative, trial phase.

I have encountered general cooperation and willingness to participate in research, but also some bodies have not responded to interview request. As interviews have been conducted within limited time frame, there was not possibility to involve all state institutions, e.g. all ministries from Croatia that are competent for environmental protection. As environmental protection is a comprehensive area it is hard to cover all the aspects, but I have tried to focus on the crucial ones, on which correspondents have put emphasis during interviews.

IV. THEORETICAL FRAMEWORK

The aim of the Directive is the introduction of effective criminal sanctions to provide the more effective protection of the environment at Member States level (Faure 2012) The general purpose of sanctioning is to express the community's condemnation of a committed criminal offence, to deter the perpetrator from committing criminal offenses in the future, to deter all others from committing criminal offences, and by the implementation of statutory punishments to increase the consciousness of citizens of the danger of criminal offences and the fairness of punishing perpetrators (Art 41 of the Croatian Criminal Code (CC)), (Criminal Code 2011).

Member States agreed that the sanctioning of environmental crimes must be effective and that sanctions need to be effective, proportionate and dissuasive in order to deter perpetrators (2008/99/EC). Taking into consideration that environmental crimes have devastating consequences to the environment and human health, the primal goal of jurisdiction system should be preventing severe environmental harm occur. Deterrence should be the primal aspect of environmental crimes prosecution. Deterrence is the omission of a criminal act because of the fear of sanctions or punishment (Paternoster 2010). Deterrence should influence potential perpetrators that there is the risk of punishment if they commit a crime.

The Neoclassical Theory of Rational Choice and Deterrence is stating that the possible perpetrator is a rational subject. Rationality includes a calculation. Subjects by using rationality, freely choose their behavior based on cost/benefit calculation (Becker 1974). The Theory of Rational Choice and Deterrence has been chosen for the study due the fact that „environmental crimes are assumed to be determined by rational calculation and are generally the result of a premeditated decision" (Du Rées 2001). Subjects choose their behavior based on their perception and the understanding of the potential punishment that will follow their illegal conduct (Becker 1974).

Enforcement is the system that comprises out of detection, apprehension, prosecution, and the conviction of offenders. The goal of enforcement is to eliminate illegal activities or to reduce them to tolerable levels to improve compliance with environmental regulations. Enforcement suppress criminal activity and create a deterrent effect (Akella and Cannon 2004). An enforcement system can be considered "effective" only if it generates an

enforcement disincentive that is larger than the financial incentives motivating the illegal behavior (Akella and Cannon 2004)

General deterrence theory by Becker (1974) is stating that the decision of polluter depends on following formula:

B - (P + S) = is environmental crime "worth committing"

- B = benefit for offender
- P = possibility for the offender to be sanctioned (depends on efficiency of implementation/enforcement)
- S = the severity of imposed sanctions

Akella and Cannon (2004) are stating that „disincentive to commit an environmental crime is equivalent to the probabilities of each step in the legal enforcement process happening, multiplied by the amount of the fine, and discounted for the time between detection and paying the fine". According to economical approach to deterrence, if the subject expects that the value of the enforcement disincentive is high enough to make its net profit of illegal activity negative, the subject will decide not to commit the crime. Enforcement system can be considered "effective" only if it generates an enforcement disincentive that is larger than the financial incentives (profit) motivating the offender to commit the crime (Akella and Cannon 2004). Consequently, all steps of the "enforcement chain" need to be analyzed in order to get the level of the efficiency of the system and the possible deterrence effect that it produces. The system is only as strong as its weakest link. Probabilities of detection, arrest, prosecution, and conviction are crucial. Enforcement systems are holistic and must be analyzed and dealt with as such (Akella and Cannon 2004). Key elements in ensuring the deterrent effect of the prosecuting system are the swiftness, severity, and the certainty of punishment (Keel 2005).
Identifying possible obstacles for the efficiency of the implementation/enforcement of the Directive would help to give recommendation for the better efficiency of the jurisdiction system in cases of environmental crimes and thus enhance deterrence effect of criminal law on potential perpetrators of environmental crimes.

V. LITERATURE REVIEW

5.1. The characteristic of environmental crimes

General public and enforcement institutions often perceive environmental crimes as not a „real“ crimes even though environmental crimes are connected with high risk for human health, ecosystems and large financial gain (Watson 2005). Public still consider them as less moral condemning acts, comparing to “real” crimes, expect when some major accident occur (Malcolm 2002). The view that environmental crime is not a “real” crime is based on an assumption that it is not resulting with direct harm to people or to the society (Adshead 2013).

Environmental crimes and their treatment by enforcement institutions deviate from the general principles of criminal law (Adshead 2013). Why that is so can be explained through the characteristic of environmental crimes which makes them somewhat different from „conventional“ crimes (e.g. crimes like fraud, murder which are publicly visible and clearly proceeded upon). The characteristics of environmental crimes affect the perception of the public, enforcement institutions and affect the efficiency and the methods of their prosecution. Environmental crimes are considered more as „technical“ offences, still not sufficiently recognized by the public and enforcement institutions (Adshead 2013), and as relatively new offences are still not in an equal position comparing to "conventional" crimes with the Criminal law theory still not adequately dealing with them (Megret 2010). But also environmental criminal law is going through constant evolution, for example it did not practically exist before 1980s and nowadays is becoming crucial legal instrument for the efficient protection of the environment (Billiet and Rousseau 2014)

The prosecution of environmental crimes and legal science related to it is still somewhat deficient compared to "conventional" crimes. This type of crime from the perspective of investigation and prosecution are much more complex than is the case of the conventional types of crimes (Faure 2012) which will be discussed later in the text. Environmental crimes often have transboundary effect, e.g. pollution of air or river watershed, and can also have negative global effect e.g. ozone depleting substances (Wright 2011). As pollution does not recognize borders, interstate prosecution is needed as well as global political agenda in combating environmental crimes (Firestone 2003).

As elaborated by Watson (2005) environmental crimes are often unmotivated being the result of accident, extraordinary situation but also negligence. Motivation for committing environmental crimes is different than in “conventional“ crimes. To illustrate the difference, for example it is highly unlikely that environmental crimes are going to be committed out of

passion. However, in the most of cases they are very closely connected to or result of economical activities, as a result of consciously gaining financial profits by avoiding the compliance with regulations in the field of environmental protection. Environmental harm compared to harm from „conventional“ crimes differentiate in a way that e.g. pollution cause harm to society, but also at the same time can generate substantial financial gain for a polluter (Megret 2011).

Even though environmental crimes can have devastating, broad and long lasting harm they are often being perceived as crimes without victim (Banks *et al.* 2008)There is often no obvious (human) victim and no usual perpetrator-victim model (Wright 2011). In most cases harm is being done to the components of the environment like air, water, soil or to the part of nature, which is all harm to non-humans. As there is no obvious human victim, often nobody reports such crimes, also without obvious human victim the reaction of the enforcement institutions can be weak and inadequate (Banks *et al.* 2008).

As often there is no direct victim **e**nvironmental crimes are difficult to detect. Also often environmental violations are not materialized in reality; they can manifest as „paper work“violations or they are the threat of future injury. If the injury happens it may be distant in time and space from illegal act which pose a difficulty in determining a perpetrator (O'Hear 2004). As explained by Megret (2011) environmental harm is often not caused by single-event typical for „conventional „crimes and it is often committed gradually. Environmental harm may not be immediately visible after being committing also environmental harm can gradually have effects after years; also harm can have multiple local, regional and global impacts. Traditional criminal law generally relies on “clearly and ideally relatively immediately ascertainable damage” (like bodily harm, death, damage to property), (Megret 2010).

As presented by Mégret (2011) environmental legislation is broad and vague which can result with the insufficient knowledge of environmental regulations by the general public and entrepreneurship and bring the uncertainty of subjects about their duties. Also enforcement institutions can have difficulties with the full understanding of comprehensive environmental regulations. Theory and practice are still establishing the clear definition of environmental crime, in a way which conducts are subject to prosecution and which penalties are appropriate. Different legal definitions, the different interpretations of regulations leads to legal uncertainty and raise concerns about the accessibility and the predictability of the law and adversely affect the efficiency of prosecuting environmental crimes.

It is often hard to collect evidence and prove environmental crime (Wright 2011). The one of reasons is that the environment is a "concept" and it needs its „representative" to act on its behalf. It is often hard to assess the damage or endangerment to the environment by financial valuation of damage (monetary value of the damage caused to the environment), (Wright 2011) which can leads to also difficulties in practice faced by enforcement institutions while conducting investigation and the prosecution of environmental crimes. Environmental crimes are often connected with other criminal offences like corruption, economical crimes and especially with (global) organized crime. As environmental crimes is often the result of economical activities, liability of legal persons (e.g. corporations) is often being raised (Wright 2011).

Environmental crimes, as they can be quite "technical" crimes require the high level of the expertise, thus the level of expertise and the close cooperation of enforcement institutions is required, e.g. police and courts cooperation with technical environmental experts such as environmental inspectors, court experts, is needed in order to determine true nature and jeopardy of some offence (Faure 2012). Reporting of environmental crimes is still not adequate and there is still not sufficient statistical reliable data (Faure and Heine 2005) which creates a gap while conducting plausible research.

As stated by Wright (2011) environmental crimes are not always obvious or quantifiable measurable thus enforcement institutions often consider it as insignificant. Comparing to „conventional" crimes, high number of environmental crimes are being undiscovered and remain unsanctioned (Billiet and Rousseau 2014). If we are aware of environmental crimes characteristic we can more easily find a way to more effectively deal with it.

5.2. Why to protect the environment through criminal law?

Until relatively recently the environment was not being protected by the criminal law. For a long time there was no consensus whether the protection of the environment should be done by using criminal law. That was for the reason of insufficient knowledge of the scale of consequences that environmental crimes can cause. Very serious incidents like acid rain, smog accidents, hazardous river pollution and ozone depleting substances pollution in nineteen sixties and the nineteen-seventies of the 20st century (Watson 2005) made legislators realize that criminal law need to be used as a measures in order to efficiently protect the environment. It also took some time to realize that environmental crimes are often the result

of organized conduct with the aim of making profit and that it can often take place within the legally permissible economic activity which can result with the pollution of air, water, soil and have negative impact on human health, ecosystem or present even global threat like e.g. climate change (Watson 2005).

As over time threat/harm to the environment has became behavior highly intolerable in society it has became a criminal offence (Vercher 2002). When talking about environmental crimes it is important to distinguish legal from illegal harm toward the environment. As stated by Mégret (2011) our economical progress is practically based on environmental degradation and thus it can be a problem to distinguish legal and illegal environmental harm. Environmental crime is an act that is causing harm or endangers the environment contrary state environmental regulations, e.g. conducting some environmental deteriorating action without a valid permit. For example, if the pollution is allowed with some administrative regulation or permits then it is usually not criminally sanctioned. Criminal regulation mainly depends on national legal systems and what each state considers socially acceptable conduct. As pointed out by Mégret (2011) states can be reluctant to prescribe some conducts illegal not only because of the cost of enforcement but also for the economical reasons, because of fear that they would deter investments and became uncompetitive.

In his work Wright (2011) presents transnational environmental crimes, it's devastating effects, and the lack of response to it. He presents the recommendation of the Network for Environmental Compliance and Enforcement that states that combating environmental crimes by using incentives as education and assistance are only effective if they are accompanied by a "credible threat of enforcement sanctions" against perpetrators. This position is also backed by Watson (2005) who states that the current level of environmental regulation is not „robust enough" in order to deter perpetrators and that more criminal law as a mean of environmental protection needs to be enforced. Commoner (1970) is stating that environmental criminal law does not just provide social stability but it is incented to protect the survival of whole society, "the survival of all living things". The use of criminal law and especially prison sanction is being used as "ultimum remedium" in environmental sanctioning and its use can be found throughout the different legislatures (Billiet and Rousseau 2014).

Vercher (2002) is discussing using of environmental criminal law as a "utilitarian solution", as an alternative to solve social problems when other legal enforcement mechanisms, e.g. administrative measures have failed. When pointing out the arguments for criminalization Mégret (2011) and Watson (2005) both states that environmental protection

policy approach based on negotiation, the incentive of administrative procedure and civil penalties is not sufficient to deter possible offenders from causing environmental harm, „administrative state is often not up to the task of protecting the environment"(Mégret 2011) so, criminal sanctions are necessary in order to protect the environment. Heyes (1998) also points out other perspective; the significant number of non-compliance is the result of the lack of information from the side of violators. The role of environmental inspections is essential to fill in information gap and to use "soft" enforcement measures to bring "uninformed" violators to compliance. Billiet and Rousseau (2014) concluded that the effectiveness of "soft" enforcement instruments such as settlements and warnings largely depends on the presence of prison sentence as an ultimate threat.

In her text Adshead (2013) describes the change of approach in dealing with the serious violations of environmental regulations. She states that they should be addressed with the severe sanctions of criminal law that reflect stigma and the condemnation of socially unacceptable behavior. Malcolm (2002) points out that the purpose of enforcement is to ensure that proper actions for the protection of the environment are taken and also to secure compliance with the legal provisions. Criminal prosecution as an enforcement mechanism should be used in the cases of violations, incidents that have significant effect on the environment; also criteria such as public interest or prior violation record should be taken into consideration. Ogus and Abbot (2002) state: "it is the matter of public policy to maintain standards and to deter others from committing an environmental crime".

By using criminal legislation, and by applying environmental regulations, complete conceptual approach to environmental protection is being achieved, thus reducing the risk to human life and health, conserving wildlife and protecting natural communities and ecological stability (Lončarić-Horvat *et al.* 2003). Malcolm (2002) is emphasizing that the protection of the environment through criminal law must be „the heart of the system of environmental protection". Other enforcement systems, as e.g. taxation, economic control have their part, but the possible decriminalization of environmental harm would give wrong message to the society.

In his paper Öberg (2014) presents dealing with serious environmental threats from perspective of the European Union (EU). He states that the EU view that without criminal sanctions the effective implementation of the EU environmental policy cannot take place. After the first period of implementation of EU environmental directives, Member States and the European Commission came to the conclusion that it is necessary to improve not only of transposing the *Acquis* into national legislation, but that the Member States also needs to

improve the implementation of the harmonized EU legislation, both at administrative and judicial level. That is why the EU has decided to introduce more advanced legal mechanism and to protect the environment by the Criminal law (Faure 2011).

The EU experience in fighting environmental offences is showing that there are large disparities in the definition of environmental crimes in the Member States (MS),(Comte 2006). Vercher (2002) is using the Explanatory Memorandum of the DIRECTIVE 2008/99/EC to explain why it is necessary to criminalize environmental harm/threat; he **is** stating that current sanction regime in the EU is not sufficient to achieve full compliance with environmental regulations, overall sanctions are not sufficiently strict and thus have not been sufficient to effectively protect the environment in the EU. Civil law or administrative sanctions are not sufficient, thus stronger enforcement with greater deterrence effect is needed and it can be achieved by using criminal sanctions. Also criminal investigation provide impartiality in proceedings because administrative authorities might have tight connections with possible perpetrators, e.g. will providing permits etc.

The EU considers that criminal sanctions „contribute to the effective implementation of union policies" thus the EU has decide to use criminal law in order to protect the environment for the reasons of necessity, because it has established that environmental harm and the endangerment of environment presents the serious infringement of the interests of society and that other less severe measures, like administrative or civil penalties are insufficient (Öberg 2011). For those reasons EU has adopted the Directive 2008/99/EC on the protection of the environment through criminal law (Du Rées 2001) present which way criminal law serve its preventive purpose, she points out that in the EU, criminal law has been used as a way to control environmental hazardous activities.

There are also arguments against the criminalization of environmental violations, (Herlin-Karnell 2012) presents arguments against criminal penalties as an effective environmental protection instrument. According to Herlin-Karnell (2012), the usage of administrative penalties produces more effect then the usage of criminal penalties. In her research she states that criminal enforcement has little impact on compliance with environmental regulations. For the reasons that people comply to rules not because of the threat of sanctions but because of the sense of duty; perceived moral obligation to comply with rules. Also criminal law is effective only if there is the subjective threat of the possibility of punishment, which is the result of effective prosecution system; which is often not the case. Also criminal deterrence theories are based on assumption that citizens are „rational" beings. Herlin-Karnell (2012) argues that in "real life" not all subject have all information nor they

act „rational“. There is no commonly agreed the criminological theory which way to use criminal law in order to better protect the environment (Megret 2011).

Environmental crimes cover the wide range of acts or omissions that damage or endanger the environment, such as the illegal emission of hazardous substances into the air, water or soil, the illegal shipment of waste or the illegal trade in endangered species and thus can have the devastating effects on the environment and human health. Environmental crimes also undermine the efficient implementation of the EU environmental and human health regulations. The experience of Member States shows that environmental and human health legislation can be effectively implemented only if there are clear sanctions for the violation of rules and thus it is necessary to impose effective criminal sanctioning (Vagliasindi 2015).

5.3. Why is important to have the efficient criminal protection of the environment?

The aim of criminal proceeding is to sanction unlawful actions, to avoid crime recurrence and to provide deterrence (Holder 2007). While imposing criminal liability on the perpetrator the goal should be the prevention or the remediation of any recurrence of the environmental harm (Malcolm 2002, Brickey 1996). The effectives of the law imply that law takes effect, which would mean that it has impact on political, economical and social life. Effectiveness refers to the capacity of criminal penalties to achieve compliance with EU environmental regulations and the extent to which rules are actually complied with in practice (Öberg 2014). In order to produce the general prevention effect of criminal law three factors are crucial: the quality of regulations and qualified enforcement officials, the level of probability that offense will be sanctioned, the sufficient severity of the sanctions to deter possible offenders (Du Rées 2001). Proceeding is swift if there is more certainty that the perpetrator will be caught and that there are sufficiently severe sanction in place, the committing a crime for perpetrator can be perceived as more “costly” (Paternoster 2010).

Stigler (1974) is putting enforcement into perspective by stating that the enforcement of compliance is taking a lot of energy and public funds, perfect compliance is not possible, but the goal is to achieve “optimal compliance“; when marginal social benefits from compliance are equivalent to marginal social costs used in securing compliance”. Ayres and Braithwaite (1992) discussed the concept of “enforcement pyramid”; violators are firstly confronted with lighter enforcement mechanism; if they do not comply then stringer

mechanisms are applied. The threats of imprisonment or e.g. revoking a license are at the top of the "enforcement pyramid" which has affect on violators to comply their conduct with regulations. It also has positive effect on enforcement costs because less expensive enforcement mechanisms are being used first. Spence (2001) found out that the vast of environmental managers believes that perfect compliance with regulations is impossible because of immense and vague environmental regulations. As stated by Öberg (2014) „criminal law is only effective as a deterrent if it creates internalized social norms which are necessary to foster compliance". There are still ongoing discussion is the criminal penalization effective way to protect the environment (Öberg 2014).

5.4. Appropriate penalties for environmental crimes

When talking about appropriate penalties Öberg (2014) is stating that they need to be effective and dissuasive. Penalties are effective when they are appropriate to achieve the certain policy objective of the law, when they are capable of ensuring compliance with environmental law**.** Penalties are dissuasive when it „prevents an individual from infringing the objectives pursued and rules laid down by the law". Penalties should be high enough to motivate citizens to respect the obligations established by environmental legislation. Penalties should take into account damage caused by a offender and to allow the restitution of the environment to its prior state (if that is possible). Penalties should prevent the further harmful acts of perpetrators, should also adequately reflect the gravity of the crimes and should not go beyond what is necessary to achieve the desired goal (Faure 2012).

While prescribing penalties in legislation or being imposed by judicial bodies' diverse interests such as environmental, human health or legal should be taken into consideration. Penalties should be stringer when it comes to health risks and less stringer in cases when only administrative regulations were violated. Discussing about the deterrence effect of criminal law Chu and Jiang (1993) state that fines should be proportional to the level of harm and is proposing to deter perpetrators by prison sentences or less-than-maximal fines. There should be the adequate range of penalties from, e.g. from minor pecuniary, in the case of minor endangerment, till severe imprisonment penalties in the cases of severe violations where damage is involved (Faure 2012). Malcolm (2002) is stating that penalizing is not the primarily objective of enforcement system, but level of court imposed sanctions sends the message to society what is and what is not tolerated in society.

Billiet and Rousseau (2014) investigate sanctions in the cases of environmental crimes, their use in everyday practice, severity and deterrence effect. She points out that prison sentence should be used only for the most serious violations as an "ultime sanctions". Several authors (Polinsky and Shavell 1984, Firestone 2003, Chu and Jiang 1993) are presenting arguments for using prison sentences as a possible instrument for "the optimal enforcement of environmental legislation" (Billiet and Rousseau 2014). Prison sentences can produce effective deterrence effect when comparing with pecuniary fines in cases when perpetrator has limited financial funds (Polinsky and Shavell 1984). Sanctions should take into consideration benefit gain from violation in order to remove illegal benefit. Also, sanctions should be related to harm and danger, or otherwise „the transaction costs of punishment may exceed the costs avoided through deterrence" (O'Hear 2004).

In cases of corporate environmental crimes criminal sanctions can be effective considering stigma connected to it as corporate officials „belong to a social group that is exquisitely sensitive to status deprivation"(Hedman 1990). Also, business could treat civil and administrative fines as the cost of doing business or transfer the cost on customers (Calve 1991, Firestone 2003).

Environmental criminal sanctions are effective because they punish the responsible party and make clear that breaking the environmental rules is a crime (Brickey 1996).The other point of view is presented by Cherry (2001), in her study she provides evidence that pecuniary fines can produce significant deterrence effect and also the costs of criminal proceedings when compared to the usage of prison sentences. Becker (1974) is debating is the perpetrator decision to make an offence is based on the costs and the benefits of both crime and non-crime. Becker is stating that perpetrator in order to be deterred must be aware that its profit from committing violation must be less than the inquired cost of being caught, as discounted by the perceived risk of such apprehension. Starr (1985) takes into consideration the cost of environmental compliance and conclude that if the cost of compliance is much higher than sanctions imposed, there is economic incentive for business to try „prosecution lottery" and conduct illegal environmental activities.

The most of the legal and regulatory framework provides punishment for the gaining of economic benefits from unlawful conduct. Punishment should deter the perpetrators to commit environmental crimes out of economic motivation. Deterrence is the omission of a criminal act because of the fear of sanctions (Paternoster 2010). Taking into consideration that acquired economic benefits from criminal act can be much higher than the prescribed punishment, it can be an additional element for the court to impose an additional fine in the

amount of the value of assets or benefits acquired by illegal act. With regard to the economic impact of sanctions, this criterion determines whether the sentence is sufficient to deter future wrongful conduct (Faure 2012).

When discussing environmental criminal sanctioning deterrence effect Wright (2011) is stating that there is the lack of criminal law enforcement in environmental cases which result with the low risk for perpetrator of being penalized, when connected with potential high illegal profit, in overall is producing high incentive for organized environmental crime. Regarding achieving deterrence Adshead (2013) is pointing out that the courts are under criticism for sentencing low fines in the cases of environmental infringement, which do not reflect the cost of non-compliance and do not act as a deterrent. Also Watson (2005) is emphasizing that current environmental criminal enforcement does not meet the requirements of the Aarhus Convention, relatively that the penalties imposed are not "adequate" and "effective" while addressing environmental and wildlife crimes. Ogus and Abbot (2002)point out that court fines in the cases of environmental offences do not correspond to the real nature of violations. Becker (1974) is concluding that for deterrence effect, the certainty of legal penalties is more important than their severity. A legal punishment is more "costly" for perpetrator and produce greater deterrence effect when it is swifter and the punishment arrives sooner rather than later after the offense (Paternoster 2010).

Spence (2001) presents studies that are showing that risk, possible „cost" of conducting environmental violations for perpetrators is very small because of the lack of detection and very low fines imposed. Paternoster (2010) is criticizing criminal justice system by stating that empirical evidence support theory that perpetrators are responding to incentives and disincentives as a rational actors, but because its inefficiency and the delayed imposition of sanctions, criminal enforcement is not using perpetrators rationality to deter their illegal actions.

Du Rées (2001) concludes that in the cases of environmental crimes the risk of being caught is low, reported cases rarely ends up with indictment and thus there is low risk for perpetrators to be penalized. If they get a sanction it is often very low. Du Rées (2001) concludes that the level of deterrence in environmental crimes is low. She indentify main obstacles for the low level of deterrence: there can be problems of technical nature while measuring and analyzing concrete offence, the lack of expertise, vague legislation, the lack of cooperation amongst enforcement bodies, problems related to competences among enforcement bodies. If the courts and prosecuting system do not respond with appropriate

measures, do not convict perpetrators and provide substantial penalties for the most serious incidents, then the view that environmental degradation is not worthy of society's condemnation will prevail and justice will not be done to the environment or society (Adshead 2013). Hatton *et al*. (2005) is pointing out: „environmental law carries a responsibility to ensure justice not only for the individual citizen, but for the collective benefit of our environment, both now and for future generations".

Overall globally, and also in EU Member States there is a gap regarding available statistical data and research on the prosecution of environmental crimes. For example, in the EU last study on the implementation of Directive 2008/99/EC in 27 Member states was published in 2007 (Lepage 2007). Conducting correspondence with the European Commission I have found out new study for 2012 was produced but „since the report relates to possible infringements of EU law, and the Commission is in the process of assessing the implementation in the Member States, this report has not yet been published" (European Comission 2015), as we may see EU Commission does not manage to adequately assess implementation of EU environmental law in Member states. Environmental law suffers from „implementation deficit" (Holder and Lee 2007). Billiet and Rousseau (2014) highlights that there is the lack of empirical studies that are dealing with the prosecution of environmental crimes, with "the extremely scarcity"of studies concerning criminal sanctions. Exploring the EU environmental criminal practice (Faure and Heine 2005) concluded that for the reasons that environmental criminal enforcement is dealing mostly with minor cases, and taking into consideration that environmental crime enforcement is relatively "young" there is still the lack of jurisprudence history to establish judicial practice. The general lack of environmental crimes jurisprudence practice is also confirmed by the research of Malcolm (2002) as well as Ogus and Abbot (2002)

Implementation implies not just the formal transposition of the Directive into national law, but also implies practical implementation that ensures that environmental obligations and standards are set "on the ground". As presented by Öberg (2011), the level of the enforcement of the Directive is different from state to state within the EU, which is connected to the level of administrative capacity in different EU countries. Croatia has entered the EU in 2103 and it has transposed the Directive 2008/99/EC through its Criminal Code the Criminal Procedure Act and the Law on Liability of Legal Entities for Criminal Offences.

In my thesis I plan to focus on Croatia as a new EU member state in order to analyze the implementation of the EU Directive 2008/99/EC in Croatia. There is no currently published literature that is dealing with the level of enforcement of the Directive in Croatia.

Also, in Croatia, there is no unified, processed statistical data regarding the prosecution of environmental crimes, from the beginning of the procedure (criminal charge) to the end of the procedure (final judgment and the enforcement of the judgment). Which represents obstacles by itself for conducting a research but it is also an obstacle for improving the environmental crimes prosecution system in Croatia. I plan to use relevant legislation, the acts of government, official reports made by competent authorities, and official statistics on environmental crimes, their prosecutions and convictions in Croatia. I plan to gather it through available online documents or contacting relevant institutions by email or telephone. I will focus my research on the enforcement of criminal law through prosecution practice within five years in Croatia. Period before entering and current period in the EU, from 2010 till 2014, will be covered. In this way I will establish possible obstacles for the more efficient enforcement of the Directive and provide recommendations for the improvement of the prosecution system of environmental crimes in Croatia.

VI. ANALYTICAL FRAMEWORK – the enforcement of environmental regulations in Croatia

6.1. The Directive on the protection of the environment through criminal law (2008/99/EC)

The Directive is establishing minimum standards with regard to definition of criminal offences and criminal sanctions that needs to be imposed in order to achieve the approximation of criminal laws and the environmental regulations of Member States in order to achieve the effective implementation of EU environmental policies. Member States have different jurisdiction system and historical socio-legal tradition so it was difficult to provide the unified agreements what kind of behavior should be defined as criminal. Prescribing criminal offences from the side of EU to Member states is especially politically sensitive taking into consideration state sovereignty(Öberg 2014). Studies conducted by the European Commission have shown great differences in the definition of environmental crimes in the Member States, and the insufficient amount of penalties in many Member States (Comte 2006).

In order to strengthen the environmental regulation implementation and the establishment of the effective system of prosecuting environmental crimes led to the establishment of a legal framework for the prosecution of environmental crimes at the EU

level. The EU Directive 2008/99/EC was adopted in 2008, Member States had obligation to transpose it into their national legislation till the end of 2010. Member States agreed that environmental crimes must be sanctioned; sanctioning must be effective in order to deter the possible environmental perpetrators. The level of sanctions must be in proportion for natural and legal persons who have committed, aided, encouraged and covered up some of the acts listed in Directive 2008/99/EC on the protection of the environment through criminal law (Faure and Heine 2005).

According to the Directive, Member States are obliged to act upon certain unlawful activities toward the environment as punishable by the criminal law and to ensure their effective punishment. The Directive also regulates the liability of legal persons for environmental crimes. Regarding the criminal prosecution the Directive does not lay down measures concerning the procedural part of criminal law, nor does it touch upon the powers of police, prosecutors or judges (Öberg 2011).

Main features of the Directive are presented by Faure *et al.* (2011). According to the Directive conducts that can be considered as environmental crimes must be unlawful and committed by intention or at least with serious negligence and that are on the list of environmental crimes from the art 3 of the Directive, which contains the list of environmental crimes which all Member States needs to implement. The Directive prescribes that acts harmful to the environment must be punished by "effective, proportionate and dissuasive sanctions" (2008/99/EC). According to the Directive the following acts shall be considered as environmental crimes, if illegal conduct resulted with significant damage or there is a high probability that there will be damage to air, soil, water, or to animals, plants, or it cause death or serious bodily injury to any person by:

• intake of ionizing materials or ionizing radiation emissions

• illegal conduct with waste, including hazardous waste (transport, storage, processing, etc.)

• unlawful operation of a plant in which a dangerous activity is carried out, or hazardous substances are placed

• illegal transport of waste

• illegal production, processing, storage, use, transport, export or import of nuclear materials or other hazardous radioactive substances

• unlawful possession, taking, damaging, killing or trading in specimens of protected wild species of plants and animals

• Trade in specimens of protected wild species of plants and animals

• any behavior that causes considerable disturbance of protected habitats

• illicit trafficking in or use of substances that deplete the ozone layer

Most of above listed criminal activities are conditional criminal, regardless whether they caused, or are likely to cause serious adverse effects for humans and the environment. For example, the illegal discharge of hazardous substances into surface water is considered an environmental crime if it is likely to have fatal consequences or harmful effects on human health or substantial damage to the environment. The illegal trafficking of waste from EU countries is subject to these provisions only in cases where significant amount of waste is being trafficking (Faure *et al.* 2011).

The Directive lays down minimum standards in defining environmental crimes at the EU level, the similar scope of liability of legal persons, as well as the features of sanctions for particularly serious environmental crimes. Given that these are minimum standards, Member States may introduce a broader scope regarding environmental crimes and stricter legislation in order to protect the environment by criminal law. The purpose of adoption of the Directive is to ensure that cases of serious environmental harm/endangerment are being treated in the same way in all Member States, and that perpetrators cannot benefit from the existing differences in national legislation. It should also facilitate cooperation between Member States in transboundary and international cases (Vagliasindi 2015).

The EU Directive 2008/99/EC prescribes that criminal penalties in cases of environmental crimes must be effective, proportionate and dissuasive. The penalties must be set in a way to ensure compliance with EU law and to achieve objectives set in the environmental regulations**.** When talking about appropriate penalties Öberg (2014) state that they need to be effective and dissuasive. Penalties are effective when they are appropriate to achieve a certain EU policy objective of EU law, when they are capable to ensure compliance with EU environmental law**.** Penalties are dissuasive when it „prevents an individual from infringing the objectives pursued and rules laid down by EU law".

6.2. The transposition of the EU Directive 2008/99/EC in Croatian legal system

Environmental protection as a special section in the Croatian Criminal Code was introduced by the Criminal Code in 1997. In the older versions of the Criminal Code individual criminal offences against the environment e.g. pollution of human environment and the pollution of drinking water were prescribed (Lončarić-Horvat *et al*. 2003). The Implementation of the EU environmental regulations is one of the requirements for entering the EU. Croatia was obliged to transpose the Directive 2008/99/EC in its national legislation. Croatia has transposed the Directive through the Criminal Code (CC),(OG 125/11, 144/12, 56/15, 61/15) and with the Act on the Responsibility of Legal Persons for the Criminal Offences (OG 151/03, 110/07, 45/11, 143/12) in which the criminal liability of legal persons has been defined. The new Criminal Act, in power from 2013, has introduced significant changes and improved the legal framework for the protection of the environment through criminal law. With the introduction of new CC, new environmental incriminations were introduced and generally sanctions for offences have been made more stringent (Cvitanović *et al*.2013).

The procedural aspects of crime prosecution are defined in the new Criminal Procedures Act (OG 152/08, 76/09, 80/11, 121/11, 91/12, 143/12, 56/13,145/13, 152/14) which contains the rights and obligations of prosecution bodies such as the Police, the State Attorney and environmental inspectors that are involved in the supervision of the environment (CPA2008). Obligations under the Directive 2008/99/EC apply only to the provisions of the regulations listed in the Annexes of the Directive which implies an obligation of Member States to provide measures for the implementation of this legislation. Sanctions are possible if there is the violation of environmental regulations, such as regulations, directives or national environmental legislation and it has been committed intentionally or with serious negligence (2008/99/EC).

Criminal offences against the environments in the CC (similar as in other EU criminal systems) contain the three mode of protection considering the primarily subject of criminal law protection. Environmental criminal legislation is protecting values such as humans, or nature or the whole environment as such. Environmental crimes are usually the crimes of endangering (concrete or abstract endangering) for which it is not necessary that actual harm occur but endangerment is sufficient to be declared it as a crime.

The three types of criminal offences:

1) The criminal offenses of endangerment: in order for environmental crime to be committed enough is an abstract threat to protected resources, such as fauna, flora or habitats, water, soil and air. The most of the offenses prescribed by the Directive and the national Criminal Code are the criminal offenses of endangering. Differences between abstract and concrete endangerment can be presented in a way that abstract endangerment is presenting the highest level of environmental protection. For abstract endangerment it is sufficient just to prove the possibility of polluting the environment, it is not required that there is a direct risk to protected values in order to be a crime. Concrete endangerment requires direct risk for the environment; there is real endangerment, but it is not necessarily that actual harm happened to the environment in order to be a crime. Concrete endangerment means that only by "pure luck" damage to the environment was avoided. Abstract endangerment means that there was the large probability of damage occurrence (Maršavelski 2011).

2) Criminal offenses resulting with damage: some illegal actions can be sanctioned only in cases where the damage is done; in these cases the damage is a prerequisite for criminal liability.

3) Criminal offenses related only to violation of administrative provisions: there is no danger or actual damage necessary for sentencing, only the breach of administrative regulations occurred.

The majority of criminal offences are characterized by its administrative accessoriness; which means that committing environmental crimes depends whether certain administrative obligations were breached. So for the application of a particular criminal offense other laws are relevant such as the Environmental Protection Act, the Nature Protection Act and other environmental sectorial laws. Croatian most relevant sectorial environmental legislations are**:** Environmental Protection Act (OG 80/13, 153/13), Air Protection Act (OG 130/11, 47/14), Act on Sustainable Waste Management (OG 94/13), Nature Protection Act (OG 80/13) Water Act (OG 153/09, 63/11, 130/11, 56/13, 14/14), Maritime Domain and Seaports Act (OG 158/03, 100/04, 123/11,141/06, 38/09), Maritime Law (OG 181/04, 76/07, 146/08, 61/11, 56/13, 26/15), Mining Act (OG 56/13, 14/14).

Environmental crimes are stipulated by the CC in chapter XX which consists of the following incriminations (new environmental criminal acts introduced are underlined): environmental pollution (Art 193), emission of polluting substances from a vessel (Art 194), endangerment of ozone layer (Art 195), endangerment of environment by waste disposal (Art 196),

endangerment of environment by a production facility, (Art 197), endangerment of environment by radioactive substances (Art 198), endangerment by noise, vibrations or non-ionizing radiation (Art 199), destruction of protected natural values (Art 200), destruction of habitats (Art 201),trade in protected natural values (Art 202), illegal introduction of wild species or GMOs into the environment (Art 203), poaching of animals and fish (Art 204), torture or killing of animals (Art 205), transmission of contagious diseases amongst animals and organisms harmful to plants (Art 206), manufacture and trade of harmful animal drugs (Art 207), veterinary malpractice (Art 208), devastation of forests (Art 209), change of the flow of water (Art 210), unlawful exploitation of mineral resources (Art 211), unlawful construction (Art 212). The most severe crimes against the environment are incriminated by the Article 214. All environmental offences, as determined in the Directive 2008/99/EC, are covered in the "new" Croatian Criminal Act.

The criminal offences from the Directive (Art 3) are transposed by following articles of the CC: 193, 195, 196, 197, 198, 200, 201, 202 and 214. Below, I will present criminal offences from the CC by which the criminal offences from the Directive are transposed. Also some general observations regarding the nature and the general characteristics of those criminal offences will be provided.

Environmental pollution, Art 193 CC is transposing Article 3(a) of the Directive: this criminal offence provides the general protection of the environment and nature. Art 193 par 1 stipulate abstract endangerment of the environment, e.g. emissions which can permanently or to a significant degree endanger the quality of air, soil, groundwater and sea, without the appearance of any danger to humans, animals or plants. By stipulating abstract endangerment the CC is providing greater protection then the Directive. Article 193 par 2 contains additional provision referring to the endangerment of the human life and health even if the conduct at stake is not unlawful. It represents a deviation from the administrative accessoriness rule; so the perpetrator can be in line with the administrative regulations and still be responsible for environmental crime due to the occurrence of serious consequence (Cvitanović *et al.*2013).

The Endangerment of the Environment with Waste, Art 196 CC is transposing Article 3(b) of the Directive: in Art 196 par 1 the illegal shipment of waste is defined as any breach of the Regulation 1013/2006/EC on shipment of waste. In order for a illegal conduct to be a criminal offence the quantity of illegally transferred waste must be in „quantity larger than negligible".

Art 2 sanction various forms of waste management, which represent an abstract endangerment for the environment, nature and people (Cvitanović *et al.*2013).

The Endangerment of environment by a industrial installation, Art 197 CC is transposing Article 3(d) of the Directive: according to teh Environmental Protection Act: „Plant is one or several operation units of the company, situated at various locations and consisting of devices, in which certain activities or part of the activities of the company are carried out". Listed article is criminalizing the abstract endangerment of the environment, nature and people by running a plant not according to regulations in which dangerous activities or substances are at place (Cvitanović *et al.*2013).

The Endangerment of environment by radioactive substances, Art 198 CC is transposing Article 3(e) of the Directive: it sanctions the abstract endangerment of the environment, nature and people by illegal production, processing, handling, using, possessing, stocking, transport, import, export or disposing of nuclear or other hazardous, radioactive material. While imposing the sentence court must consider whether it is the case of high, medium or the low level of radioactivity (Cvitanović *et al.*2013).

The Destruction of protected natural values, Art 200 CC is transposing Article 3(f) of the Directive: it is a new criminal offence. Real harm need to occur as a prerequisite for criminal punishment. By this article all protected species are protected against destruction and damage to them. Strictly protected species are defined by the relevant ordinance of the MENP. There is no criminal offence if a violation has been committed toward the negligible quantity of the members of species, or had a negligible effect on the preservation of this species (Cvitanović *et al.*2013).

Trade in protected natural values, Art 202 CC is transposing Article 3(g) of the Directive: it is forbidden to trade in all protected species and their parts and products manufactured from them .There is no criminal offence is there is the case of smaller amounts, and if there is a negligible impact on the conservation of species. For the offences committed out of negligence lesser sanctions are prescribed. In the case of small quantities of protected animals or plants misdemeanor rather than criminal proceedings should be initiated (Cvitanović *et al.*2013).

Destruction of habitats, Art 201 CC transposing Article 3(h) of the Directive: a new article in the CC, prohibits the destruction or significant damage to the habitat of protected and strictly

protected species. The task of this article is to protect the areas that are protected by any European or national legislation on nature protection, e.g. the network Natura 2000. it can be committed with aggravating circumstances such as the destruction of important biosphere for hibernation, breeding or the migration of protected species (Cvitanović *et al.*2013).

Endangerment of the Ozone Layer, Art 195 CC is transposing Article 3(i) of the Directive: new criminal offence in which the ozone layer is recognized as a value that needs the protection of the CC. It is punishable to endanger the ozone layer by production, operations, import, export, etc. which use substances that deplete the ozone layer. It is not necessary to inflict endangerment for a conduct to be a criminal offence, but only violations of administrative regulations are sufficient for the conduct to be criminally sanctioned (Cvitanović *et al.*2013).

Discharge of Pollutants from a Vessel, Art 194 CC: new criminal offence, introduced in order to ensure adequate protection in accordance with the provisions of the Directive on ship-source pollution (DIR 2005/35/EC and DIR 2009/123/EC), which seeks to punish the intentional or negligent discharge of pollutants substances from a ship into the sea. This offence is penalizing any water pollution from vessels including those resulting in internal waters, which led to the deterioration of its quality. Criminal offence is the solely act of water pollution which degrade water quality, regardless whether with that act also possible endangerment of flora, fauna or people occurred. The reason for more stringent protection of water is that it is extremely difficult to clean the water once it got polluted (Cvitanović *et al.*2013).

Serious Criminal Offence against the Environment (Art 214 CC): in listed article the qualified forms of criminal offenses against the environment are prescribed. The new CC prescribes higher penalties for environmental violations which resulted with serious consequences such as major pollution, major damage, severe bodily injuries or the death of people. New term "major accident" is introduced as "an event or uncontrolled outbreak caused by a large emission, fire or explosion..." (Cvitanović *et al.*2013).

Overall, the provisions of the Directive 2008/99/EC have been correctly transposed into the national legislation (established through interviews with MENP officials, also through the EU twinning light project CRO ENOFFENCE 2011). Croatian national environmental criminal provisions are broader and provide stringer environmental protection than the Directive. For example the CC is prescribing that certain environmental crimes can be

committed by abstract endangerment which represents more stringer regulated negligence then in the Directive. Namely in the Directive it is prescribed that environmental crimes is a crime if it is committed with intent or with *serious* negligence, In the CC *simple* negligence is sufficient, which is stringer criminalization then the one in the Directive. Also in the CC more environmental components are protected in more stringer way then in the Directive. So, we may say that "on paper" Croatia has more advanced criminal environmental protection then it is prescribed by the EU DIR (MENP 2011).

6.3. Environmental criminal sanctions prescribed by Croatian legislation

Criminal sanctions applicable to environmental offences regulated under the Criminal Act are imprisonment and fines. Apart from imprisonment and fines, courts may impose alternative sanctions, such as suspended sentence, obligation to carry out community service, remedial and special preventive instructions, security measures which enable the perpetration of another criminal offence and the protective supervision (Criminal Code 2011). Of relevance to environmental offences is the obligation in the CC to remedy the damage inflicted by the criminal offence within a specified deadline. The judge will determine the type and the level of punishment within the limits determined by the law taking into account the perpetrator's level of guilt and specific mitigating and aggravating circumstances._The relevant transposing provisions of the Criminal Act set the minimum and maximum imprisonment sentences foreseen distinguishing between negligence and intent. The term of imprisonment for environmental crimes ranges between six months to five years, whereas the maximum term of imprisonment can be up to 10 years in case of long term pollution, major accident or serious injury to one or more persons. In case when criminal offence resulted in the death of one or more persons, the term of imprisonment can be up to 15 years (Criminal Code 2011).

The court shall impose a pecuniary fine according to the perpetrator daily income, between thirty and three hundred sixty daily incomes, except for criminal offences committed for personal gain when the maximum fine may amount to five hundred daily incomes. The daily income is determined by taking into account perpetrator's total income, his property and his family obligations (Criminal Code 2011). Furthermore natural persons committing environmental crimes may be subject to the following criminal sanctions other than imprisonment and fines:

- confiscation of the pecuniary gain acquired as a result of the criminal offence,

- confiscation of the items and equipment used for perpetration of the criminal offence, and (Criminal Code 2011).

6.4. Enforcement regimes for the protection of the environment in Croatia

In Croatia the powers of the state are organized on the principle of the separation of powers into legislative, executive and judicial branches. Croatian legal system is continental, civil law legal system which means that that court decisions are not a source of law, but legislative branch, Croatian parliament is adopting laws, which are being enforced by executive powers and courts. Enforcement regimes that are coercing subjects to comply with environmental regulations are following: administrative enforcement measures and judicial measures which include misdemeanor and criminal proceedings. Also there are environmental liability mechanisms (UN 2014). The administration (inspection) is responsible for imposing administrative measures which main task would be the prevention of environmental harm. Penal sanctions for environmental offences are being prescribed either by Misdemeanor court in Misdemeanor proceedings (misdemeanor penalties) or by the Criminal courts in Criminal proceedings (criminal penalties). The relationship between enforcement systems are following: the administrative measures/sanctions can apply in addition to misdemeanor or criminal ones, thus, criminal (misdemeanor) and administrative procedure may run in parallel (Lončarić-Horvat *et al*. 2003). Misdemeanor and criminal proceedings should not run in parallel because they are both penal systems. According to the legal principle *No bis in idem* (no one can be prosecuted/punished twice for the same act) if subject is sentenced in the one of those penal system he cannot be prosecuted in other. Thus, enforcement bodies must decide which proceedings to initiate (Novosel, Rašo and Burić 2010).

6.4.1. Administrative Proceedings

The term administrative offence is used when fines are prescribed by environmental authorities themselves, for example by environmental inspection. An administrative proceeding is being initiated by environmental inspector when a non-compliance with environmental regulations is detected. The administrative sanctions are stipulated by the environmental sectorial legislation. The administrative sanctions can order the removal of the consequences of environmental pollution, the implementation of the measures of the restoration programme etc., which are preventive and remedial nature measures. Also punitive administrative measures might be imposed as the revocation of

permits and authorizations. Also inspector can impose mentioned administrative measures through imposing a pecuniary fine which may be imposed several times until compliance is achieved. The administrative court conducts the judicial control of state administration through administrative suits in administrative dispute procedure If the administrative proceeding has not resulted with compliance inspectors can use penalizing proceedings (misdemeanor, criminal) in order to achieve compliance (Lončarić-Horvat *et al.* 2003).

6.4.2. Criminal proceedings

Criminal offences and criminal sanctions are prescribed in Croatian Criminal Code. Criminal proceeding is prescribed by the Criminal Procedure Act (CPA), (OG 152/08, 76/09, 80/11, 121/11, 91/12, 143/12, 56/13,145/13, 152/14). Criteria that would distinguishing criminal liability from administrative is that administrative non-compliance is "only" the violations of environmental regulations while criminal responsibility is the violations of environmental regulations resulting with a threat to the life or the health of the large number of people or causes/could have caused major damage to the fauna, flora or other serious consequences to the environment as prescribed in Criminal Code. Environmental crimes are being reported to the State Attorney's office by submitting criminal charge as a proposal for criminal prosecution. Decision whether to start a criminal proceeding is made by the State Attorney who then conducts the criminal investigation and represents the case in front of the criminal court.

Criminal courts are set as two instances courts. Municipal courts as first instance courts, and county courts as second instance courts that deals with appeals on first instance verdicts. Criminal proceedings can be separated in main parts: submission of criminal charge, investigation of criminal offense, indictment, trial, appeal proceedings (MENP 2011).

6.4.3. Misdemeanor proceedings

Besides criminal offences as defined in the Criminal Code, misdemeanor offences play a significant role in the environmental enforcement practice. Misdemeanor offences are stipulated by environmental sectorial acts. A misdemeanor proceeding is being conduct according to the Misdemeanor Act (OG 107/07, 39/13, 157/13). Misdemeanor proceeding is penalizing proceeding and sanctions such as pecuniary fines, warning measures, protective measures even imprisonment can be imposed. We can consider it as „small" criminal proceedings. While criminal law is covering the severe cases of environmental violations,

medium and minor cases are dealt by the means of misdemeanor law. Misdemeanor proceeding is held in the front of specialized courts; Misdemeanor courts is first instance body in the charge of issuing misdemeanor sanctions. An appeal can be submitted to the High Misdemeanor Court as an second instant body (Novosel, Rašo and Burić 2010).

The role of the enforcement bodies is to bring violators to compliance, to impose sanctions, to remove economic benefit of non-compliance, to remediate environmental damage and to promote compliance (Lončarić-Horvat *et al.* 2003).

6.5. Croatian institutional framework in cases of environmental offences

In the next chapter the main state institutions that are dealing with the criminal enforcement of environmental regulations, their competences and roles in the Croatian administrative/legal system are going to be represented. Main stakeholders that are dealing with the detection, investigation and prosecution of environmental crimes are: inspections that protect the components of nature and environment, The National Protection and Rescue Directorate, Customs officials, the Police, State Attorneys and the courts. Inspections competent for environmental protection are crucial for detection, collection of evidence and proposing prosecution of environmental crimes. The police are responsible for detection and investigation of environmental crimes. The prosecution of environmental crimes falls within the competency of the State Attorney.

The competences for environmental protection are divided between a large number of line ministries and their inspectorates**:** The Ministry of Environmental and Nature Protection (MENP) is the central authority for implementing environmental and nature management and protection policy including the Environmental protection inspection and the Nature protection inspection. The MENP is responsible for the implementation of nature protection, sea protection (the quality of bathing waters), air quality, climate change, ozone layer protection, waste management, hazardous waste, soil protection, protection from light pollution, Industrial pollution control and risk management sectors of the EU environmental *Acquis* and co-ordination of other environmental inspections. The environmental protection inspection within the Directorate for Inspection operates through the central office located in Zagreb and branch units located in county seats and in the City of Zagreb (MENP 2015a).

Other ministries involved in environmental protection inspection include: The Ministry of agriculture (water inspectors, forestry inspectors) is competent for water, forest and agricultural land protection, GMO issue, management of animal waste. The Ministry of Health (sanitary inspectors) is competent for protection from harmful effects of chemicals,

GMO, ionizing and non-ionizing radiation, noise protection and public health. The Ministry of Maritime Affairs, Transport and Infrastructure (maritime safety inspectors), is competent for general sea protection, including ship-source pollution. The Customs Administration within The Ministry of Finance, is competent for illegal shipment of protected flora and fauna species (CITES) and illegal transboundary shipment of waste, control of volatile organic compounds and import/export of ozone depleting substances. Other bodies would be The Ministry of Interior (fire protection and explosives inspectors), National Rescue and Protection Directorate and State Inspectorate (economic inspectors, labor and occupational safety inspectors, electricity inspectors, mining inspectors and pressure vessels inspectors). Also Sanitary inspection, mining inspection, construction inspection have their role in environmental protection. The responsibility for overall environmental protection as a whole is divided between many ministries. In principle, every ministry has an inspectorate to check compliance with the legislation for which it is responsible. Environmental protection in Croatia is fragmented between many different institutions. It can be rather complex to establish which state enforcement body (inspection) has authority and is responsible for a specific case (UN 2014).

Environmental inspection conduct activities related to compliance checking and setting of measures to prevent environmental pollution. Inspectors have multiple roles in criminal proceedings. They detect environmental crimes, collect evidence and submit criminal charges/ propose prosecution. Also can have the role of investigations in criminal prosecution led by the state attorney and they can be summoned as witnesses in front of the court (MENP 2014).

Environmental inspections must provide information and assistance to the police, the state attorney, to the investigator and to the court for the purpose of criminal prosecution (CPA 2008). As explained during interviews: inspector as a single person can at the same time have different roles. Inspector role in administrative procedure with main emphasizes on prevention and advisory role, in criminal proceeding as investigators and detectors of criminal offences.

The Customs Administration is in charge of detecting illegal shipment of protected flora and fauna species (CITES) and illegal transboundary shipment of waste, control of import/export of ozone depleting substances and volatile organic compounds. Regarding prosecution of environmental offences the Customs can impose a misdemeanor fine on a spot, also are submitting criminal charges. To illustrate their role, illegal transboundary shipment of

waste can present violations of customs and environmental regulations at the same (Customs Administration 2015).

The National Protection and Rescue Directorate operate the European telephone number for emergency situations for the territory of Croatia (112 number) and has numerous functions under the Protection and Rescue Act. For example the directorate manages the protection and rescue forces, coordinates the actions of participants in protection and rescue operations, transfers information and monitors the situation. They notify and closely cooperate with the Police and the Environmental inspections in cases of environmental accidents and offences (NPRD 2015).

The Police are in charge of detection and investigation of crimes including environmental crimes as part of their main responsibilities. The police perform investigation and evidence collection, verify information received by the public and submit criminal charges to the State attorney. They should carry out necessary inquiries to establish whether there is direct or sufficient circumstantial evidence for criminal charges and propose prosecution to the state attorney**.** The police also have a role as criminal investigators under the request, guidance and supervision of the State attorney. Furthermore, they should provide assistance to inspectors in performing their duties, in case of resistance against inspectors` activities and measures (Law on Police Powers and Police Conduct 2009).

The State Attorney has the duty to prosecute crimes and is responsible for leading the prosecution of environmental crimes. The State Attorney´s most important powers include inquiries of potential criminal offences, ordering various state bodies to undertake supervision and other measures within their authority, undertaking investigation and evidence collecting actions, decision to initiate prosecution and submission of the indictment, acting as a party in the proceedings and representing the indictment in front of the court. The state attorney is one of the main subjects of the criminal, *dominus litus* of the procedure, and represents the indictment without any assistance, initiative and involvement of the court. The State Attorney is of great importance; it is the body that leads criminal investigation and gives order to other bodies like police or to inspectors in their role of investigators during criminal investigation of environmental crimes (SA 2015).

The Misdemeanor Courts are responsible for leading the misdemeanor proceeding in cases of misdemeanor environmental offences. Only authorized state bodies, like environmental inspections, police, State attorney, can initiate misdemeanor proceedings within their jurisdiction in front of Misdemeanor court. Second instance, appeal body is High misdemeanor court.

The Criminal Courts (in case of environmental crimes the Municipal Court) are responsible for leading the criminal proceedings and for deciding on the case once the state attorney has submitted the indictment. Second instance, appeal bodies are County criminal courts.

Even though protection of the environment through criminal law is not the novelty in Croatia the transposition of Directive 2008/99/EC brought significant changes in the field of environmental crimes. The Directive has been effectively transposed into the national law and some national environmental crimes provisions are broader than the Directive's one. Sanctions prescribed by legislation for both natural and legal persons are assessed as effective, proportionate and dissuasive (MENP 2011). Above presented enforcement bodies are responsible for implementation of environmental provisions in practice.

6.6. The criminal liability of legal persons for environmental crimes

The Directive is prescribing requirement to impose the responsibility of legal persons for environmental crimes. It is especially important because legal persons are considered as the often perpetrators of environmental crimes (Croatian Bureau of Statistics 2015). The criminal liability of legal persons has been introduced for the first time into the Croatian legislation in 2004 with the adoption of the Act on the Responsibility of Legal Persons for the Criminal Offences (The Act on legal persons), (OG 151/03, 110/07, 45/11 and 143/12). Pursuant to the abovementioned Act the criminal liability of legal persons is based on the model of derivative, subjective and cumulative liability. Hence, the liability of legal person is derived from the guilt of a responsible person. However, the legal person shall be punished for the criminal offence of the responsible person also in cases when the guilt of the responsible person could not be determined due to existence of legal and actual obstacles, e.g. amnesty, immunity, death of the responsible person, etc. That means that the legal person may be held liable even if the guilt of the responsible person has not been determined (Cvitanović, L. *et al*.2013).

The responsible person is a natural person managing the business of the legal person or entrusted with the tasks from the scope of operation of the legal person (Article 4 of the Act on Legal Persons).The legal person may be held liable for all criminal offences stipulated in the CC and in other relevant legislation provided that the offence violates any of the duties of the legal person or if the legal person has obtained or should have obtained illegal gain for itself or a third person. The application of those criteria allows establishing the causal link

between the criminal offence and the legal person and only in these cases the guilt of the responsible person may be attributed to the legal person.

The Act on legal persons determines the applicable sanctions, namely fines and termination of the legal person. However, the latter sanction may only be imposed when the legal entity was established for the purpose of committing the criminal offence or used its activities primarily to commit the offence. Apart from imprisonment and fines, courts may impose a wide range of alternative sanctions, such as obligation to carry out community service, suspended sentence, special instructions (remedial and special preventive instructions), security measures aimed at eliminating the conditions, which enable or encourage the perpetration of another criminal offence and the protective supervision (Legal persons 2003).Fines are set in accordance with the maximum prison sentence that can be imposed for a natural person for a similar offence. The levels of fines that may be imposed to legal person pursuant to the Act on Legal Persons for the Criminal Offences are listed below: A legal person may be punished by a fine of 5,000.00 (app. EUR 655.00) to 15,000,000.00 HRK (app. EUR 1,049,000.00) depending on the severity of imprisonment for particular criminal offence range from which can range from one year to up to fifteen years. The maximum applicable fine that may be imposed for serious environmental crimes vary between EUR 1,572,880.00 for offences resulting in serious injury, long lasting pollution and major accident and EUR 1,966,100.00 in case the death of one of more persons has occurred as a result of the offence (Legal persons 2003), (Exchange rate used: 1 EUR=7.54 HRK, approximate average rate based on the exchange rate of Croatian National Bank for July 2014).

VII. BARRIERS FOR THE MORE EFFECTIVE PROSECUTION OF ENVIRONMENTAL OFFENCES

7.1. The phenomenology of environmental crimes in Croatia

In this chapter the most important aspects of the efficiency of environmental criminal prosecution in Croatia based on available statistical data and conducted interviews with stakeholders identified as relevant for the thesis will be presented. Along the efficiency of criminal proceedings, the aspects of the efficiency of misdemeanor proceedings are presented in the chapter. Misdemeanor proceeding is a penalizing proceeding. Environmental sectorial regulations need to be violated as a precondition that some conduct can be considered as environmental crime. Misdemeanor offence is base for criminal offence; misdemeanor

offence can „overgrow" in criminal offence. Environmental criminal offences, because of their administrative accessoriness principle, encompass misdemeanor offence. Criminal offence is considered as a misdemeanor offence with severe consequences (Novosel, Rašo and Burić 2010). The transposition of the Directive 2008/99/EC in the CC (in force from 2013) resulted with the number of new criminal offenses against the environment. The SA expects "…that the introduction of new environmental criminal offences in the CC will in due time result with the greater "inflow" of reported environmental criminal charges..." (SA 2013).

While presenting environmental crimes in Croatia all environmental crimes that are stipulated by the Croatian Criminal Code (section XX-environmental offences against the environment) will be presented. Emphasis will be put on environmental crimes that are stipulated by the Directive. Environmental crimes in the Directive are considered as the cases of serious harm/endangerment to the environment (Vagliasindi 2015).

7.1.1. The most common criminal offences against the environment in Croatia

Criminal offences against the environment, in contrast to the sum of criminal offences in Croatia, represent a small part (SA 2010-2014). Throughout the thesis research period, environmental crimes represented a bit over 1 % from the overall amount of crimes in Croatia E.g. in 2014 the environmental crimes represented 0.9% of all reported crimes (SA 2014). The SA states that "reason for is the large statistical dark number" (SA 2010-2014). The SA considers that environmental crimes are happening in reality to a larger extent but because of the low level of public environmental awareness, "because of the low interest of the competent services and institutions whose task is to detect and report on these crimes." (SA 2010-2014) environmental crimes are not being adequately detected nor reported. In its report the SA, in particular, delineates the environmental crime of the Unlawful Exploitation of Mineral Resources (Art 211 CC) which the SA consider as the environmental crime with especially high statistical dark number. The crime fails to be reported even though by the SA knowledge there is a great amount of such criminal acts in practice (SA 2010-2014).

The most frequent criminal offences are poaching fish and game, the unlawful exploitation of mineral resources, unlawful construction and the killing or torture of animals (SA 2010-2014). Listed environmental criminal offences represent around 99% of all environmental criminal offences in Croatia. For example in 2013, out of 174 convicted persons 164 were convicted for above-mentioned (most common) environmental crimes (Croatian Bureau of Statistics 2014). Most common environmental criminal offences in

Croatia, are "less significant" offenses against the environment, and are not crimes covered by the Directive as "serious" offenses against the environment (2008/99/EC). A very small amount of “serious” environmental crimes, as stipulated by the Directive, are being prosecuted in Croatia, which is visible in next table.

Table 1: Types of environmental crimes reported to the State Attorney (submitted criminal charges), 2010-2014.

Source: drafted using data from the Ministry of Interior (2015), the MENP (2015b) and the Nature Inspection (2015).

Criminal offences against the environment	2010	2011	2012	2013	2014
Unlawful hunting and fishing	340	536	325	174	122
Killing or torture of animals	21	16	11	114	75
Unlawful construction		104	57	26	6
Unlawful exploitation of mineral resources		32	32	10	134
Destruction of protected natural value				45	10
Nature inspection criminal charges	7	3	11	1	2
Endangerment of the environment with waste	8	5	1	5	8
Habitat destruction				2	1
Trade in protected natural values				4	5
Forest devastation	8	6	2	5	8
Endangerment of the environment with industrial installation			1		
Environmental pollution		1	1	3	2
Serious environmental offences	9	1			

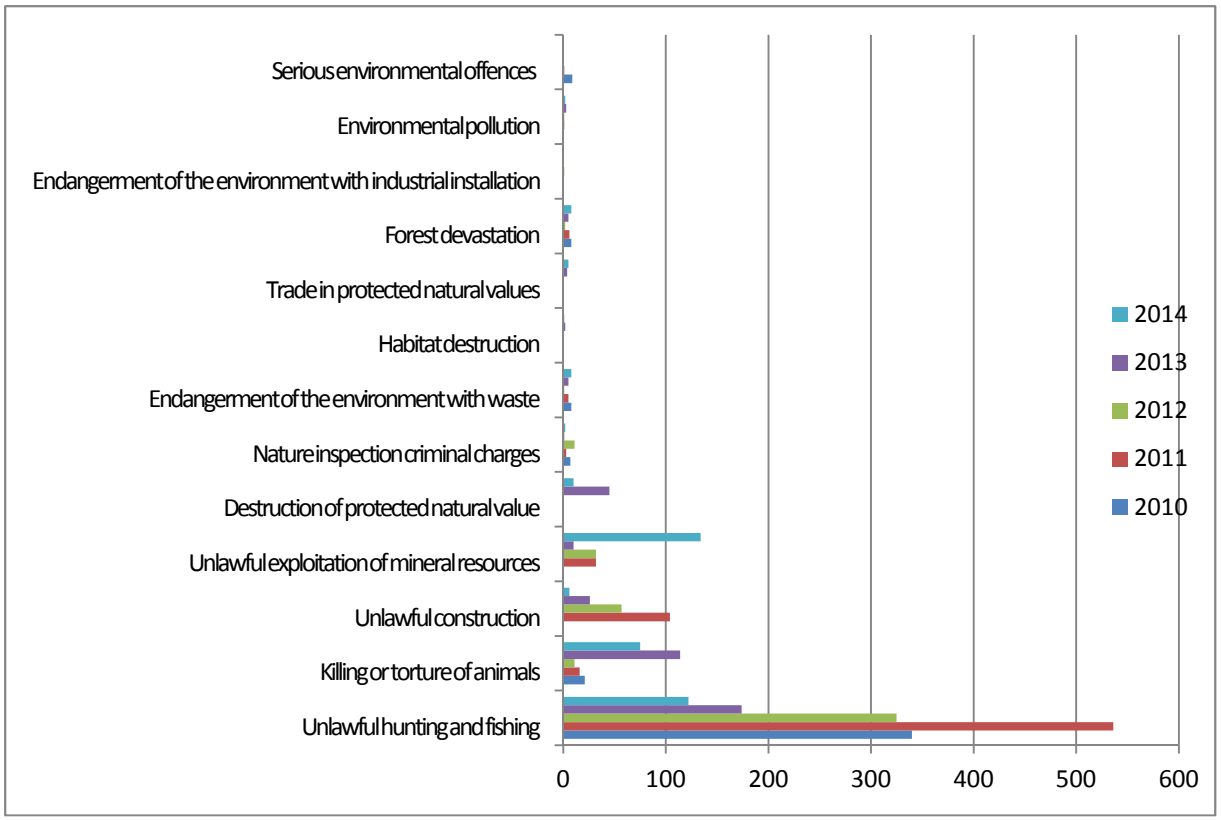

Figure 1: Types of environmental crimes reported to the State Attorney (submitted criminal charge) 2010-2014.

Source: drafted using data from the Ministry of Interior (2015), the MENP (2015b) and the Nature Inspection (2015).

Few people were convicted for "serious" environmental offences: for environmental crimes connected with waste around ten people, environmental pollution one person and for destruction of protected natural values five people (Croatian Bureau of Statistics 2014). All other adjudicated environmental criminal offences within observed period are "minor" environmental criminal offences, like illegal hunting/fishing etc.

During conducted interviews the interviewee presented their opinion on the general state of "serious" environmental crimes in Croatia:

The police: it turns out that in Croatia there are no "serious" environmental crimes, as defined in the Directive, and that deterrence has been achieved. Because of inadequate detection and the prosecution of "serious" environmental they are not represented in official statistic.

MENP: environmental crimes within the jurisdiction of the MENP in principle do not exist or are not recognized. If we look at the very low number of criminal charges submitted by the MENP we can say that there is the lack of awareness or knowledge on environmental crimes. Environmental crimes which are not under the jurisdiction of the MENP's are represented in higher number.

Nature Inspection: there are few criminal offences against the environment. We believe it is for the reason that they are not being adequately recognized, reported and then prosecuted. Furthermore, it is very hard to prove them in front of the court. Other reason would be that the highest amounts of violations are committed by an unknown perpetrator.

The SA stated that generally speaking, there are practically no serious environmental crimes in Croatia. The Judge of criminal Court: "there is very little criminal court practice related to environmental crimes".

The most common prosecuted environmental crime, in the sense of the Directive, is the Endangerment of the Environment with Waste (Croatian Bureau of Statistics 2014).

"Serious" criminal offences in the sense of the Directive are represented in low number in Croatia. On the one hand, those criminal offences either are not occurring in reality and we could conclude that Croatia has the high level of deterrence in cases of environmental crimes. On the other hand, those criminal offences are not adequately detected, reported and thus prosecuted. I conclude with excerpts from the SA annual report: "… there are environmental criminal offenses for which criminal charge was never submitted, partly because those offenses have not yet been committed in Croatia, and partly because of low ecological

awareness and inadequate environmental education thus particular criminal environmental violations are not being considered as criminal offences." (SA 2010-2014).

7.2. Detection and reporting on environmental offences

The number of reported perpetrators of criminal offences against the environment is annually decreasing. There were 747 criminal charges in 2010 and these charges were reduced to 243 in 2014 (SA 2010-2014). It represents a drastic decrease in reported environmental crimes. The main reason for that are legislation changes of the CC and changes in environmental crimes legal definition. For example, the legal definition of the criminal offence of "Illegal construction" (earlier the most frequent environmental crime (SA 2010-2014) is narrowed down (there was no longer a need for such strict offence). It was a crime against the environment, if it was committed anywhere on the territory of Croatia. Nowadays it is a criminal offense if it is being committed in protected areas. Criminal charges for "Illegal construction" offence dropped from 350 a year (2010) to 25 a year (2014), (SA 2010-2014).

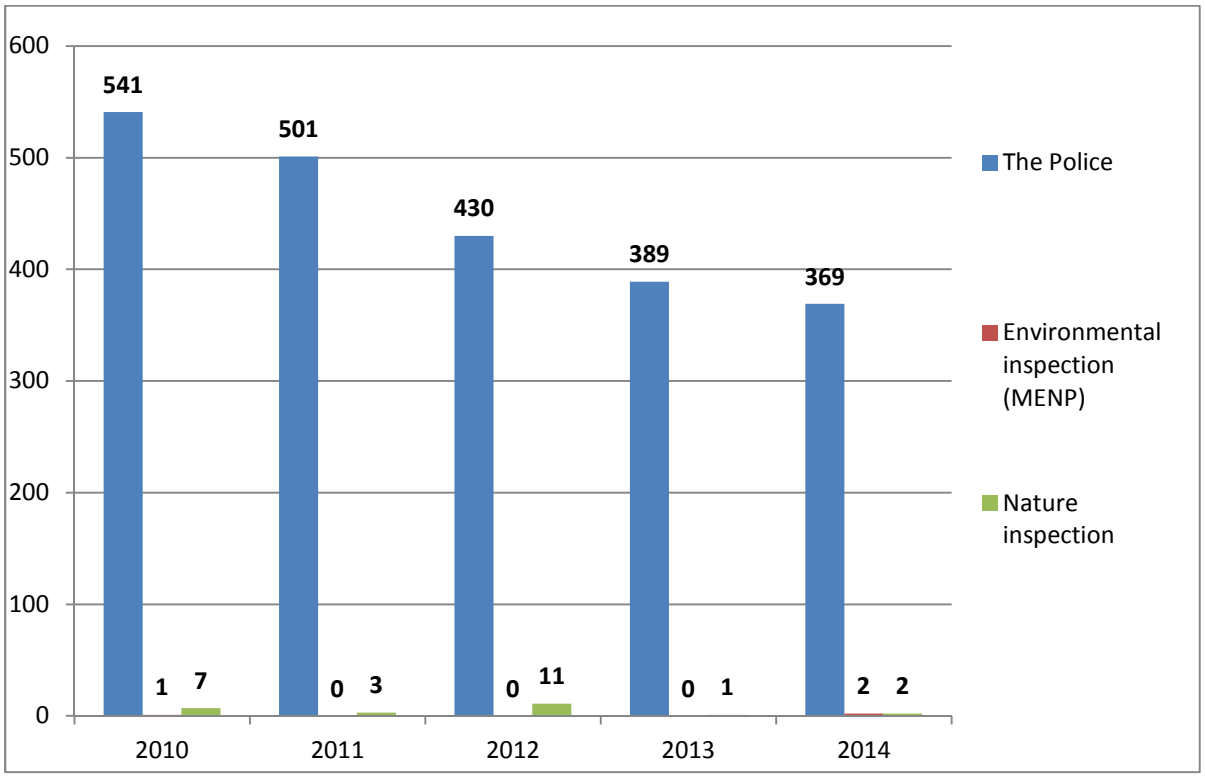

Figure 2: Number of submitted environmental criminal charges, 2010-2014.
(Note: not included all institutions responsible for environmental protection. Only data from cooperating institutions are included.). Source: drafted using data from the Ministry of Interior (2015), the MENP (2015b) and the Nature Inspection (2015).

During interviews other aspects of the CC legislation changes were pointed out by the SA: "Changes in criminal legislation has resulted in that criminal offence the Killing or Torture of Animals has increased visibility and it is, in recent years, much more detected, reported and prosecuted than prior." E.g. in 2010 there were 21 reported criminal offences of Killing or Torture of Animals which rose to 75 in 2014 (Ministry of Interior 2015). The discussed offence has certainly not started occurring in 2014 three and half times more often than in 2010. The changes of legislation and raising public awareness have multiplied the prosecution of that criminal offence.

Upon the accession into the EU, new criminal offences against the environment were introduced. However, administration, private subjects and the jurisdiction system need time to adjust to new criminalization (MENP 2013).

Environmental crimes are criminal offences that are reported and prosecuted ex officio, which means that institutions have an obligation to automatically submit a criminal charge after they become aware of a committed criminal offence. Submitting a criminal charge is defined as a citizen´s duty and the obligation of all government bodies and legal persons. If state officials, as part of their duties, do not report environmental crime they can be held criminally liable (Criminal Code 2011). Everyone should report environmental crimes. Low environmental public awareness can also lead to lower level of enforcement of environmental regulations (Faure and Heine 2005). With better criminal regulation, public awareness can be raised which results with greater "visibility" of environmental crimes and more offences are detected, reported and consequently prosecuted (Faure and Heine 2005). The SA remarks on the reporting of environmental crimes: when it comes to reporting on environmental incidents and crimes, the SA pointed out that the operators of industrial installations are obligated to report environmental incident to state institutions.

The Police are submitting the highest amount of environmental criminal charges toward the State Attorney. The largest amount of criminal charges being submitted by the Police refers to illegal hunting and poaching, around 90 % per year. Other significant cases are the unlawful exploitation of mineral resources and illegal construction. Around 5% of criminal charges per year are related to "serious" environmental crimes in the sense of the Directive (Ministry of Interior 2015). The police have a crucial role in the detection of offences against the environment, both through their presence in the field, as well as being the body to which citizens most often report a violation of regulations, include environmental pollution (MENP 2013).

Regarding the institutional capacity for the detection of environmental offences interviewee from the Police stated: in the Police organization structure there is no special department for the environment. Environmental offences are within the general crime department. In practice that basically means that other types of criminal offences have priority over environmental violations. In the police station there are no police officers who are specialized for environmental violations which could be directly contacted by other institutions. There were trainings for the police officers within EU projects on environmental crimes. So, each county police administration has at least one police officer which participated in the program of environmental education. Still, there is no systematic approach toward environmental crimes in a way that there is constant and systematic education of the Police on environmental violations. The SA opinion is that the police are prioritizing other types of crimes over environmental crimes and thus a lot of environmental crimes remain undetected and uninvestigated. The Police state that their work depends on the overall amount of reported environmental violations to them. The small amount of reported environmental violations comes from the side of citizens and NGOs.

In regard to the reporting of environmental offences, the MENP's interviewee explained: in recent years the MENP has received an increased number of environmental crimes reports from the Police, especially regarding waste. Nowadays, there is a better cooperation with the Police. Currently, according to the Croatian laws, the police have the right to prepare Misdemeanor Charge only in the case of the violations of "their own" laws, e.g. traffic laws. In case they detect the violation of the Environmental Protection Act or the Act on Sustainable Waste Management they have to forward the information to the MENP, as only the MENP has the right to submit Misdemeanor Charges to the Misdemeanor Court.

MENP: Anonymous reports are often related to environmental violations, without sufficient evidence and witnesses. It is extremely hard to act based on such reports

In the case of environmental offences, there are a high number of submitted criminal charges against an unknown perpetrator. Around 50% of environmental criminal charges are submitted against an unknown perpetrator. Out of those charges, only a small number of perpetrators are discovered. E.g. in 2014 only 16 out of 186 unknown perpetrators were discovered. E.g. in 2014 only 16 out of 186 unknown perpetrators were discovered (Ministry of Interior2015) which means that 90% of unknown environmental crimes perpetrators remain undiscovered

The Customs detect the shipment of illegal waste and monitors CITES shipments on state boarders. The Customs conduct the integrated monitoring of the border with the Police and other inspections. The MENP is periodically present at the border (once a month). The Customs presented obstacles in the detection of environmental offences: when it comes to the detection of violations the problem can emerge if there is some shipment for which extra technical knowledge is needed and the MENP inspection is not at the border. Also when the MENP is present on the border they are there till their working hours (4 pm). Generally, „suspicious-shipments" are being sent after the end of inspection working hours. If the customs If customs detect some „suspicious" shipment they will stop it until the inspection arrives, which could be until the next day. The stopping of shipment can be very inconvenient in ports, in the case of a large, valuable ship consignment. It can result in the Customs' reluctance to stop the ship unless there is a case of an obvious and serious violation. Through interviews with NGOs, the perspective of citizens related to detecting and reporting on environmental crimes was provided: citizens are reluctant to report environmental violations on their own for the reasons they are either afraid, or they do not believe they can do it by themselves. Citizens have low confidence in institutions and believe that institutions will not solve their problem and it will be a waste of time. When citizens do report violations to environmental NGOs, they expect them to „push" the cases. NGOs had emphasized that there is a formidable role of communal supervisors (local community monitor service that monitor communal order) in detecting and reporting environmental violations.

Regarding cooperation with citizens on detecting and reporting environmental violations the MENP conducts open hours for meeting with citizens ("open hours" to meet with citizens in person every first and third Monday of the month). Inspection can be contacted through phone and over MENP inspection's email address (MENP 2015b).

NGOs have established „The Network of Green Phones". It is the cooperation network of environmental NGOs in Croatia, providing service for citizens with information and issues related to the environment, nature and their protection. Its main purpose is reporting of environmental violations, so that NGOs could be a link between citizens and state institution regarding environmental violations (Green phone network 2015).

NGOs: over the year we are getting better cooperation with state institutions, to a stage that they are (almost) fully responsive. We would like to point out that still significant part of state institutions are not responsive over email; even though legislation is prescribing email as means of official correspondence.

MENP: when talking about the detection of environmental violations, we should point out the MENP had passive duty for the case of environmental incidents. Passive duty was abolished in 2012 because of budget savings.

NGOs: when it comes to the detection of environmental violations from the side of environmental inspections, issues like administrative capacities, organizational structure, and the geographical distribution of inspections can result in lower detection rate. For example, state water inspection is not evenly geographically distributed. In the case of pollution emergency call it might result with the inspection's late arrival to the site. In the case of water pollution quick reaction is crucial. Also the MENP inspection is understaffed in their branch offices (5 branch offices across Croatia). Sometimes the problem lies in insufficient technical equipments, e.g. inspectors do not have enough cars to cover some remote areas. The lowering of budget resources subsides the availability of environmental inspection.

The level of detection of environmental offences depends not just on the work of environmental inspectors but also on the detection by the Police, regular citizens and NGOs. The lack of environmental awareness and knowledge on environmental violations is affecting the level of detection and thus the prosecution of environmental offences. There is still a lot of space to enhance the cooperation of enforcement bodies when it comes to the detection of environmental offences. State institutions should be more open to citizens' complaints and proposal and should fulfill their legal obligations on an adequate level of correspondence toward citizens.

Environmental crimes are "control crimes," they might go unnoticed for a long time before potential damage is visible. Consequently, their detection rate is directly linked to the efficient control of national, mostly administrative bodies. If the work of environmental administrative bodies is inefficient, environmental offences will remain unidentified and will not draw the attention of investigating/prosecuting authorities (the Police and State Attorney), (Euro just 2014).

Taken into account the low probability of detection, it seems realistic that environmental crime can only be deterred by relatively high monetary sanctions on violations of environmental legislation (Faure and Heine 2000).

7.2.1. Submitting environmental criminal charges

When some environmental violations is detected and there is reasonable doubt that criminal offence has been committed competent body (or any citizen can do it) have a legal

obligation to submit a criminal charge toward the SA in order form the to start with the prosecution of that potential environmental crime. The SA will start with prosecution if it determines that there is enough ground that environmental crime has been committed (CPA 2008). That is why submitted criminal charges need to have relevant elements and be adequate quality so that the SA can adequately act upon them.

During interviews, drafting and submitting criminal charges was highlighted. Environmental inspector's background is mainly in natural sciences. Criminal charge is a legal document; legal support in submitting criminal charges and in initiating misdemeanor proceedings is vital. The institutional capacity of environmental inspection for submitting criminal charges was discussed.

MENP: the Legal service exists only in the central office in Zagreb; regional offices have no legal departments. In the MENP central service, none of the ministries lawyers is in charge of dealing with criminal/misdemeanor offences against the environment. In addition, the Legal service does not have adequate capacity to provide comprehensive legal support to inspectors though, legal support is provided from time to time in cases that are more difficult. Inspectors have the possibility of consulting the Legal service. This can be a problem in practice due to distance (inspectors from regional branch offices). Furthermore, the communication takes place over e-mail and sometimes there is not enough time for consultation. There is also the large fluctuation of staff within the legal service, which influences experience and the acquaintance of the MENP lawyer's with environmental offences. In front of the court it can be difficult for inspectors and MENP lawyers to "parry" companies' lawyers.

Nature inspection: there is no support from the legal service. We are drafting criminal charges by our self. When it comes to misdemeanor proceedings, nature inspectors solely initiate proceedings. In the front of the Misdemeanor court, inspectors represent the Ministry without legal support. The one of the reasons for the lower efficacy of environmental misdemeanor court cases is the absence of legal support in inspection work.

In general, MENP lawyers are not involved in drafting criminal charges or initiating misdemeanor proceedings but inspectors do that "legal work" by themselves. Inspectors, in general, are dealing with processing criminal and misdemeanor offences without legal support. Without proper legal support, it is difficult for inspectors to determine whether some conduct is a criminal offence, because the criminality of environmental violation is also a legal question.

MENP: the biggest problem is the small amount of environmental criminal charges which is the result of not recognizing, thus detecting environmental crimes which then are not coming to the State Attorney in order to be prosecuted.

In the MENP none of the Ministry lawyers is specially designated as a support to inspectors in misdemeanor and criminal proceedings. The inspection branch units do not have lawyer and have little (if any) cooperation with lawyers from the MENP central office. The MENP legal service does not have enough capacity to provide such support. Legal support is being provided to inspectors in rare ad hoc cases and not as a regular systematic assistance in their work during the processing of environmental offenses. Legal support to environmental inspectors is not institutionalized. Inspectors decide on their own whether to initiate misdemeanor proceedings or issue criminal charge as well as on how to draft them. Because of insufficient/ non-existent legal support, the charges can lack data/information to be considered by the relevant prosecutor. In general, the Ministry does not send the representative of the Ministry to the Misdemeanor Court; only inspectors are sent in their capacity as court witnesses or as the MENP representative. Not having adequate legal support in front of the misdemeanor court might lead to an unfavorable outcome on the processing of an environmental offence.

7.2.2. Environmental inspectors as investigators in environmental criminal proceedings

The investigator is a new subject in the newly regulated criminal procedure, which fully entered into force 1 September 2011. Prior to this the role of the investigator did not exist before. The State Attorney appoints an investigator, and orders an investigator to perform certain actions. Environmental inspectors can be appointed as investigators in the frame of their jurisdiction and competence (CPA 2008). MENP´s (central office) intervieews reported that until now they are not aware of any cases where environmental inspectors were called upon as investigators by the state attorney. There is one case from the MENP branch office where environmental inspector participated as the investigator in the criminal procesution of massive fish mortality in a river.

SA: inspectors as investigators in the criminal proceedings are a relatively new element in the proceeding. So, far there are no (or meager) such cases in practice. Since the legal introduction of the investigator institute is of recent date, it is difficult to conclude on its practical application.

From the conducted interviews conclusion can be drawn that using inspectors as official investigators in criminal proceedings has not been fully implemented.

7.3. The State Attorney conduct on environmental criminal charges

For criminal offenses against the environment in Croatia there were large numbers of dismissed criminal charges by the SA. Almost the half of all submitted criminal charges in the period 2010-2013 were rejected by the SA (SA 2010-2014).

The SA believes it to be due to the lower quality of criminal charges submitted mostly by natural persons who do not have adequate knowledge about the characteristics of particular criminal offenses. The SA's opinion is that in the cases of environmental crime there should be more initiative and interest of competent services and institutions that deal with environmental protection. Institutions should submit criminal charges of adequate quality that could potentially result in a higher number of raised indictments by the SA (SA 2013).
In 2014 there were less submitted criminal charges than in previous years; also there were lower proportion of dismissed criminal charges. The dismissal of criminal charges by the SA lowered from around 40% in 2010 to 25% in 2014. The SA's opinion is that the smaller number of dismissals and the growing number of indictments demonstrate a better quality of criminal charges and that criminal investigation of environmental crimes were better conducted (SA 2014).

SA: if the SA dismiss submitted criminal charge, institutions that submitted the charge can independently take over the prosecution (the SA can join the prosecution at any later stage). None of institutions had used that legal possibility when it comes to environmental crimes.

The Issue of an effective processing of environmental offences also depends on the quality of criminal charges that individuals or institutions are submitting to the SA. A criminal charge is a base on which the SA build the prosecution of some environmental crime and decide on further actions. Not having an adequate legal support within enforcement institutions certainly has effect on the quality of criminal charges being submitted. The SA suggests that a "timely detection of environmental crimes is needed as well as submission of high-quality criminal charges which could potentially result in the different structure of the decisions taken" (SA 2104) and thus result with a higher number of environmental indictment.

7.4. Distinguishing misdemeanor and criminal offences as the barrier for prosecuting environmental crimes (*ne bis in idem* principle)

During interviews the issue of *ne bis in idem* principle has been emphasized as a possible barrier for the efficient prosecution of environmental crimes in Croatia. *Ne bis in idem* principle means that no one shall be convicted in criminal proceedings under the jurisdiction of the same State for the same offense for which the person had already been finally acquitted or convicted in accordance with the law and penal procedure of that State " (Novosel, Rašo and Burić 2010).

The ruling of the European Court of Human Rights (ECHR) in the "Maresti "case, stated that the Republic of Croatia has not fully respected the *ne bis in idem* principle in its criminal proceeding" (Novosel, Rašo and Burić 2010).The mentioned ECHR verdict has effects on the modus of processing environmental crimes thus Croatia was obliged to change its legal practice. According to the prior legal practice it was possible to be sentenced for the same offence in misdemeanor and in criminal proceedings. It is currently no longer possible and the authorized plaintiff must choose which proceeding to initiate. The Central State Attorney's Office issued an instruction (in 2010) for the Police and State Attorneys on how to act in cases where there are elements of misdemeanor and criminal acts present at the same time. The instruction reads: "In cases where with one act there is a misdemeanor and a criminal act committed at the same time, the police only file a criminal charge and do not, at the same time, submit a misdemeanor charge to the Misdemeanor Court. If the State Attorney rejects the charges, proposal for initiating a misdemeanor proceeding is required to be submitted to the competent Misdemeanor Court." (Novosel, Rašo and Burić 2010).

In the instruction there is a special warning that each case is specific and that in the context of the current legislation there are no clear guidelines on the basis of which one could make uniform rules for all violations and crimes „(Novosel, Rašo and Burić 2010). The objective of the listed instruction is to avoid double punishment for the same violation, and to avoid situations that would prevent the conduct of criminal proceedings because of the existence of a misdemeanor conviction for the same violation.

For environmental inspectors the general rule is that inspectors in the case of reasonable suspicion that an environmental crime has been committed must immediately report the potential crime to the SA (EPA 2013). However, there are cases where it is not so easy to distinguish whether it is a misdemeanor or a criminal offense, and accordingly decide

whether to file criminal charge or initiate misdemeanor proceeding. The decision should be made after consultation with the State Attorney's Office (Novosel, Rašo and Burić 2010).
MENP: in the case of *ne bis in idem* principle, the coordination of all relevant enforcement bodies is important. For example, when misdemeanor proceeding is being initiated, the Misdemeanor court requests information on whether already a criminal charge has been submitted.

The Customs/ MENP inspection: if there is uncertainty whether some violation is a misdemeanor or a criminal offense the State Attorney should be contacted. The SA shall decide whether some specific violation is criminal or misdemeanor offence.

SA: distinguishing misdemeanor and criminal offences is the matter of the assessment of institution that has detected a certain violation.

The respect of *ne bis in idem* principle requires greater cooperation and the coordination of enforcement bodies. Especially important is cooperation with the SA. The SA is the sole competent body that decides whether a violation has the elements of a criminal offense. It is important to avoid the situation of preventing a criminal prosecution by adopting misdemeanor judgment for a potential criminal offence. It is also important, if it is decided that some environmental violation is not a criminal offense, to be prosecuted as a misdemeanor offence.

7.5. Vague notions as an obstacle for prosecuting environmental crimes

Factors that might be an obstacle for adequately prosecuting environmental crimes are vague notions. The Directive 2008/99 and the CC refers to the variety of vague notions, like "substantial damage", etc.; term from the legal description of the criminal offense which defines what the type of environmental endangerment/harm should be criminalized. Vague notions from the Directive can be a challenge for MS for the reason that MS need to delineate some environmental criminal offences and at the same time implement the Directive correctly. The Commission does not expect the literal transposition of the Directive vague notions in national legislation but expects interpretation in the light of national legal traditions (Faure 2010).

As established through interviews, currently Croatian legislator is using rather vague definitions of legal standards in environmental crimes legal description (e.g. harmful or endangering pollution in the CC) and is relying on the judiciary to provide the further interpretation of vague notions through the judiciary practice.

Nature inspection: when there is doubt wheatear some violation is misdemeanor or criminal, in general misdemeanor rather than a criminal proceeding is being initiated. Inspectors are not fully sure what kind/level of violation is considered as an environmental crime. One of the main reasons for it is "legal standards" or vague notions from the legal description of environmental crimes.

Vague notions are defining when some violation is an environmental crime. For example, environmental crime Trade in Protected Natural Values (Art 202 par 4 CC): "there shall be no criminal offence referred to in paragraph 1 of this Article where it is committed against the negligible quantity of members of a species or other protected natural value and has had the negligible effect on the preservation of this species or other protected natural value. "

Terms "negligible quantity" and "negligible effect" are vague notions, and enforcement bodies need to evaluate whether some individual environmental violations falls within those legal standard in order to be considered as a criminal offence.

MENP: vague notions can present a problem in the practice because of insufficiently defined standards to identify what would be the criminal offence in the particular case of environmental violations. Taking into consideration that most often in environmental cases there might be no scientific evidences (or there are not so much relevant to the court) it is important to "convince" the judge that some particular violation is the case of environmental crime; to indirectly prove your case in front of the court. The court is often using the expert knowledge of court experts in order to determine the level of violations. Thus, court experts can have great importance in court trials. Often the question is raised regarding the level of expertise of court experts that are being used in particular environmental cases.

Municipal Criminal Court: the description of criminal offences in the CC is too vague. The legal description of environmental crimes should be more precise. It is often difficult for the court to determine what a vague notion exactly means in practice and thus can provide an obstacle in adjudicating. The Court practice of higher courts (County Criminal Courts, the Supreme Court) should determine what vague notions present in practice from case to case, but environmental crime court practice in Croatia practically does not exist.

SA: general problem regarding vague notions is scarce court practice that could define vague notions. Taking into consideration are little environmental crimes that are being adjudicated, environmental court practice is created slowly. The Supreme Court with its legal interpretations sets legal standards, but it has not dealt with environmental vague notions.

Vague notions gives broadness to criminalization because all particular environmental violations cannot be precisely described, but also if vague notions are too broad then requirement that criminal provisions should be sufficiently precise and clear can be missing (Faure 2010). There is not enough relevant environmental judicial practice that would more closely determine the meaning of vague notions for particular criminal offences. The opinion of enforcement institutions is that the legislator has set vague notions too broad. It is necessary to more precisely define the vague notions in the legal description of environmental crimes, for example with bylaws etc. Vague notions, too broad prescribed by legislation and not adequately defined through court practice can be a deterrent for initiating criminal proceedings for inspectors and the police because they are not sure whether certain violations present criminal offenses. Furthermore, the lack of legal support to the inspectors that would help them in defining vague notions terms in practice. Thus inspectors in general initiate misdemeanor proceeding because they are sure about the actual legal definition of environmental crimes. The absence of definitions makes it difficult to determine whether a particular case is already a crime or merely a misdemeanor (Eurojust 2014).

7.6. Court practice in cases of environmental offences

Most data on environmental offences is related to start or end of enforcement proceeding; to the initiation of proceeding or to the sanctioning. Also the most of the interviewees were enforcement bodies that are dealing with the initiating of the proceedings. I had managed to interview only one court judge and did not have access and insight into proceedings in front of the court. Thus, there are not as much findings on this part of the proceeding.

SA: Criminal courts are not accustomed to environmental also for the cases, so often there might be a case that judges do not fully "understand" environmental crimes. That happens also for the reason that there is a small amount of that type of cases in proceedings.

Trials for environmental crimes are often complicated (technical violations). Trials usually require (technical) expert opinion. During trials there are often opposite expert opinions and thus trial confrontation of experts from the side of plaintiff and offender. The judges in most of the cases are relying on expert opinion and it can be difficult for them to assess the real situation in environmental cases.

Regarding proving of environmental offences in front of courts following observations were collected:

MENP: the proving of case in front of the court can be quite difficult. Vague notions from the criminal law need to be proven and it can be quite a challenge. It is important to "convince" the judge that it is the case of environmental offence.

Nature inspection: it is almost impossible to discover unknown perpetrator. Even if it is discovered, it is extremely hard to prove the conduct of criminal act by a perpetrator. E.g. in the case of poaching it is almost impossible to prove by using forensic from which rifle buckshot was shoot

MENP: Sometimes judges are asking for *in flagranti* evidence ("caught in the act"), asking inspector: „Have you seen dumping of waste?" Environmental crimes in most of the times do not have eyewitnesses.

Inspectors have an important role in front of the court as witnesses. Inspectors possess special technical knowledge and experience regarding their work. Judge, prosecutors and other participants in the proceedings do not possess this kind of technical knowledge.

SA: Prosecuting, proving in environmental criminal proceedings is a very demanding procedure. Every term from the legal description of the criminal offence needs to be proven in front of the criminal court.

All (four) elements of criminal offence: conduct, fulfillment of statutory elements of criminal offence, unlawfulness of conduct and guilt of the defendant needs to be established in order for some violations to be considered as the criminal offence (Grozdanić *et al*.2013).

SA: misdemeanor proceeding is much easier, only the breach of administrative violations needs to be proven.

The Customs: In Croatia there are no judges specialized for environmental offences, neither at criminal courts nor at misdemeanor courts.

MENP: The Ministry of justice replied that there is no need for the environmental specialization of the judges because there is low amount of environmental cases in front of the courts. Nevertheless, there is a need for the environmental education of judges.

Criminal court judge: given the fact that there is the small amount of environmental cases that are coming in front of the courts, (high) courts are not able to establish adequate environmental court practice (jurisprudence). This could define guidelines for similar

environmental cases. Because of the lack of court practice, it is often difficult for judges to make a court verdict, especially when it comes to the cases of environmental crimes vague notions

SA: related to the criteria for determining criminal offenses against the environment, obstacles can be insufficiently precise legal standards (vague notions) from criminal offences articles in the CC. Namely, there is not enough environmental case law to determine the practical significance of the legal standards regarding environmental crimes.

MENP: environmental misdemeanor and criminal court practice is inconsistent in the terms of the severity of sanctions and different adjudications in similar cases. Inconsistent court practice produces legal uncertainty.

According to the opinion of some interviewed environmental inspectors, "the weakest link in prosecuting environmental offences is judiciary". Environmental inspectors during their work often encounter that the judges do not understand the concept of the environmental endangerment/damage/. Inspectors had also stumbled upon unfamiliarity, not understanding of certain environmental crimes from the side of judges. Inspectors have raised the question whether the judges correctly understand the concepts of abstract / concrete endangerment in criminal offences against the environment.

MENP: judicial organs are in general not sufficiently familiar with the complex environmental regulations. The education of judges on environmental regulations is needed.

There is no extensive environmental judicial practice in Croatia. It still needs to be established. Judicial practice depends on the amount of cases that are initiated in front of the courts, but also on the amount of appeals that enforcement institutions are lodging in order that higher courts adopt verdicts. The verdicts of higher courts are crucial in establishing adequate court practice. With established adequate court practice in environmental cases, the efficiency of the environmental enforcement system at large would be significantly enhanced.

7.7. Effective sanctioning in cases of environmental offences

Regarding fines stipulated in the CC there is general opinion that they are adequately prescribed in the law, with sufficient severity in order to deter potential perpetrators (MENP 2011).

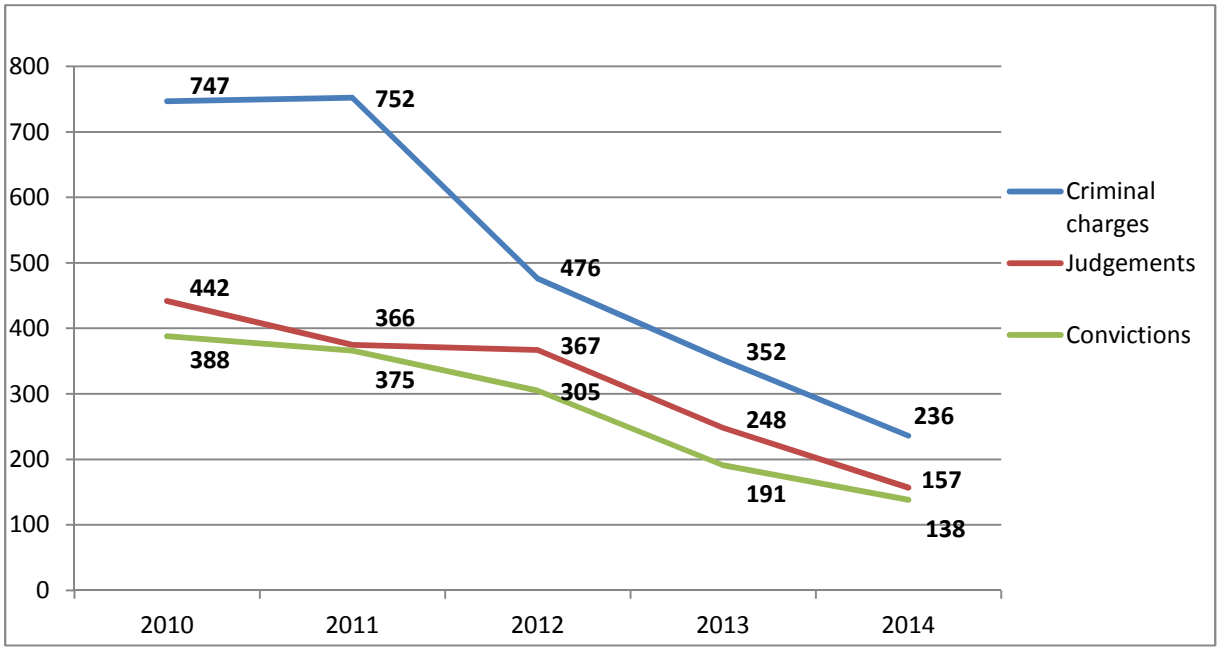

Figure 3: Criminal proceedings actions related to environmental crimes.
Source: drafted using data from the SA (2010-2014).

Relevant and available official statistic presents following data on types of criminal offence sanctions. The number of judgments for environmental crimes is on steady decline, with 442 judgments in 2010 to 157 judgments in 2014 (SA 2010-2014). That corresponds with decline in the number of submitted environmental criminal charges throughout years. In the cases of environmental crimes there is the high number of convictions in front of the courts, constantly around 87% from 2010-2014 (SA 2010-2014). The structure of criminal sanctions imposed by the criminal courts comprises of suspended sentences, public work, pecuniary fines and prison sentences. The most common sanction being imposed by criminal courts are suspended sentences. The share of suspended sentences in overall sanctions is in constant rise from around 62% in 2010 to 77% in 2014 (SA 2010-2014). Pecuniary penalties have been represented with around 36% in 2010 but are on steady decline; they had come down to 10% in 2013 and around 8% in 2014 (SA 2010-2014). Prison sentences are represented in the small amount of overall sanctions. In addition, a steady decline is visible in the number of imposed prison sentences from seven prison sentences in 2010 to two in 2013 and none prison sentence being imposed in 2014 (SA 2010-2014). Very small percentages of sanctions are public work sanctions. There is no credible statistical data which criminal sanctions were prescribed for which criminal offence. Also, there is lack of data on the amount pecuniary fines and severity of sanctions being imposed for natural persons in cases

of environmental offences against the environment. One of the reasons for using pecuniary fines and not prison sentences is that the purpose of criminal law is the prevention of crimes. Prevention could be better achieved by probation then through imprisonment (Faure and Heine 2005).

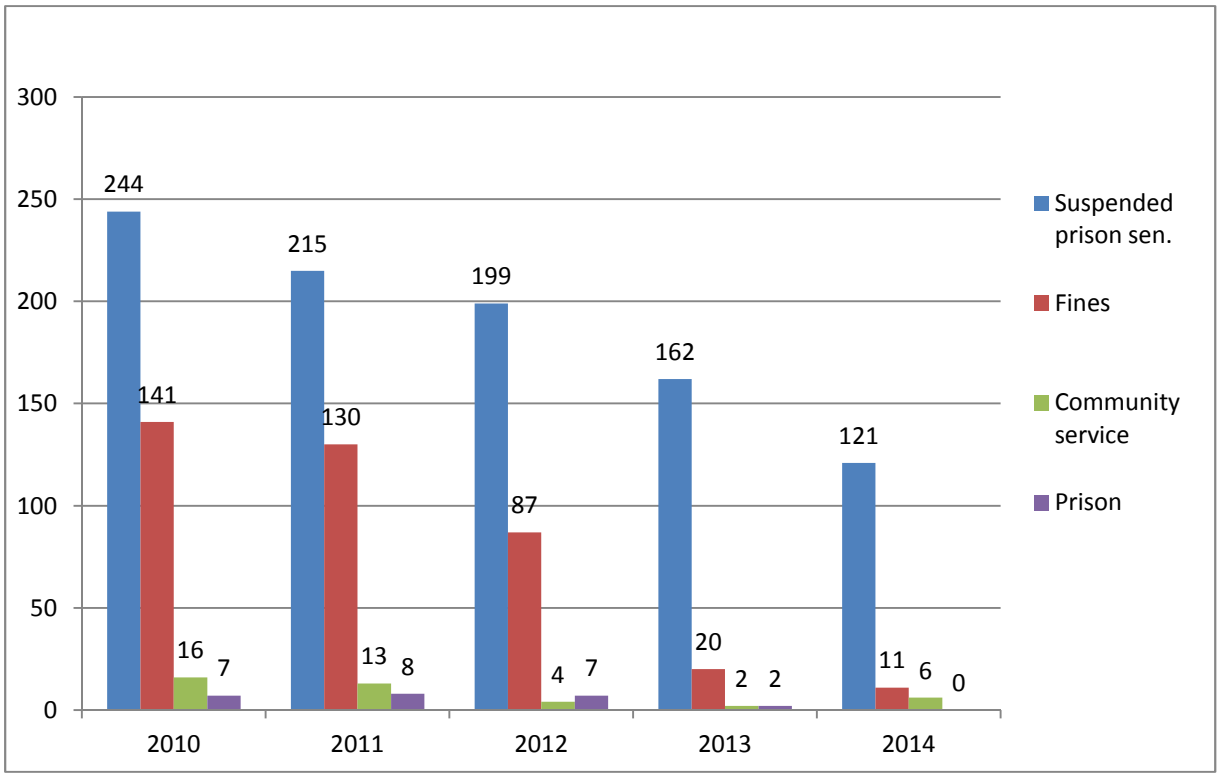

Figure 4: Judgments of conviction for environmental crimes according to the type of sanctions, 2010-2014.
Source: Drafted using data from the SA (2010-2014).

From the presented statistical data it is visible that unconditional prison sentence are very rarely being used. Pecuniary fines are represented, but in very decreasing number and have amounted only to some 8% of the overall sanctions imposed, the rest of sanctions practically consist out of suspended prison sentences. Considering that the most of the penalties are suspended sentence, the courts clearly consider such sanctions proper to achieve adequate deterrence effect. There has been an overall decreasing trend in the total number of environmental cases, and thus the number of convictions. Due to the reduction in the share of imposed unconditional prison sentences and pecuniary fines in the overall number of imposed environmental sanctions it can be concluded that currently convicted environmental crimes are minor criminal offences and it seems that there is decrease in the severity of imposed criminal sanctions for environmental crimes in Croatia.

7.7.1. The Criminal liability of legal persons

The Act on the Responsibility of Legal Persons for Criminal Offences has been in force since 2004. The share of environmental crimes in the overall legal person's criminality is in decline from 4.7% in 2010 to 1.7% in 2014 (Croatian Bureau of Statistics 2015) There is also the trend of decline in the number of submitted criminal charges against legal persons. There were 85 criminal charges in 2010, 33 in 2012, and only 19 legal persons were reported for criminal offences against the environment in 2014.It represent a significant decline in the number of reported legal persons. In the observed period legal person were mainly reported only for two criminal offenses: the Unlawful Exploitation of Mineral Resources and the Illegal construction. For other environmental criminal offences during observed period (2010-2014), only three legal persons were reported for Environmental Pollution and few for the Endangerment of the Environment with Waste**.**

Out of those submitted criminal charges around 50% were dismissed by the SA. The percentage of convictions has been rising from less than 30% in 2010 to around 60% in 2014. The SA explanation is that better quality criminal charges are being submitted. (SA 2010-2014).

Regarding criminal sanctions for convicted legal persons, pecuniary sanctions are imposed in all cases. The highest number of penalties is in range from 5000 HRK (657 EUR) to 50.000 HRK (6574 EUR), with just one fine above 100.000 HRK (13 150 EUR), (Croatian Bureau of Statistics 2015). Five times in five years, courts have imposed the forfeiture of property gained by criminal offence. Only one security measure was imposed in five years (Croatian Bureau of Statistics 2015). Security measures are criminal sanctions, which serve to eliminate the conditions that enable or encourage the perpetration of another criminal offense, e.g. forfeiture (Grozdanić *et al*.2013).

MENP: courts are imposing too low sanctions in the cases of environmental offences. Courts in their practice usually use the provisions on the mitigation of punishment and impose very small fines. Judiciary has an insufficient level of awareness about the potential danger of environmental offences, and possible permanent and significant consequences to health and the environment in the wider area. Also environmental offenses may be the source of large material gain, and thus result with unfair competition in the market. Perpetrators by

conducting environmental offense are illegally gaining profit; also those factors should be taken into consideration while imposing court verdicts.

Conducting an environmental crime can bring high financial profit. So, next to „conventional sanctions“ like pecuniary fine and imprisonment also sanctions that are removing financial profit should be imposed (Faure and Heine 2000). The forfeiture of property gained by environmental criminal offence is rarely used in Croatian judicial practice, which is not creating deterrence effect and makes committing environmental offence “profitable”. Assessing criminal enforcement in other EU countries has showed that the severity of fines in average are relatively low (Faure and Heine 2005). The sanction should take into consideration the low portability of detection, and should be a multiple of potential benefit to the offender to outweigh the low detection rate. So, sanction should be much higher than they are in court practice in order to deter possible perpetrators (Faure and Heine 2005).

7.7.2. The efficiency of environmental misdemeanor proceedings

Regarding misdemeanor proceedings data that was available was from the MENP. Other institution does not have annual reports ort have not responded. About 80% of submitted misdemeanor charges by the MENP are relate to waste management, about 12% to the Environmental Protection Act, and about 8% related to air protection. There is the significant increase of the number of submitted misdemeanor charges based on the facts being established and delivered by the staff of the MUP related to waste violations (MENP 2014).
During the years, there has been decline in the submission of misdemeanor charges. The MENP in its report interprets it as the result of conducted inspections supervision in previous years that resulted with the large number of supervised entities complied with environmental regulations. Another reason for the smaller number of initiated misdemeanor procedures, since July 2013, is the application of regulations harmonized with the European legislation: the Environmental Protection Act and the Act on Sustainable Waste Management, for which it is necessary, some adaptation, both for operators and for inspection services (SA 2013).

Regarding the misdemeanor courts sanction, as there is the reduction of misdemeanor charges it correlative resulted with reduction in the number of judgments per year. Looking at the structure of imposed misdemeanor judgments. The small number of defendant is being liberated (about 4%). The most of the subject for environmental misdemeanor offences are declared guilty. Also a lot of cases have been suspended for the formal, procedural reasons, mainly because of the statute of limitation (MENP 2015b).

When imposing penalties, misdemeanor courts are imposing pecuniary fines. The most of the misdemeanor courts imposed sanctions (from the competence of the MENP) are below the sanction statutory minimum (ruled according to the courts` right to impose fine below the minimum fine prescribed by the law).), e.g. in the 2013 out of 222 pecuniary sanctions for waste management around 90% were sanctions below the statutory minimum (MENP 2013). Similar sanction pattern is also present throughout the observed period. There were only few maximum sanction imposed through five years.

During interviews with MENP officials and environmental inspectors they stated their dissatisfaction with the severity of penalties imposed by the misdemeanor courts, they point out that Misdemeanor Court fines are too low. At the same time interviewed enforcement officials have stated that misdemeanor sanctions prescribed by the environmental sectorial laws are set to high and do not provide flexibility in enforcement.

MENP: there is no the distinction of misdemeanor according to the type (size) of perpetrator within the same type of offenses. For example, in the case of the waste management offense, person who illegally disposes some random waste is treated by the law the same as the Mayor who has not rehabilitated some landfill. The lowest level of sanction is set too high.

The Customs: misdemeanor penalties in environmental legislation are nominally set too high. Therefore, the customs is reluctant to use a misdemeanor order in their practice because in it customs officer must determine the severity of penalties, and are reluctant to impose such high fines (e.g. the minimum penalty is 100.000 HRK= app.15.000 EUR).

General conclusion for pecuniary sanctions being prescribed in administrative sectorial environmental legislation (e.g. the Waste Act etc.), is that those penalties are relatively too high and in many cases are not adequate for the concrete offence in question. Several inspectors reported that sending an indictment proposal to the Misdemeanor Court would potentially mean that the obliged subject could get a fine that is, in their view, not proportionate to the non-compliance/breach of legal obligations detected. This fact in combination with the relatively high fines in sectorial environmental legislation, to the understanding of the author, can prevent inspectors from initiating misdemeanor proceedings.

Even though state officials who are dealing with environmental enforcement are not satisfied with first instance misdemeanor court verdicts the number of appeals to court verdicts is extremely low. E.g. in 2013 the MENP has received 328 misdemeanor court verdicts and has submitted only 2 appeals on received court verdicts (MENP 2013). That is, by any

estimation, extremely low amount of appeals. The reason for not submitting appeals to the High Misdemeanor Court is inadequate time for submitting appeals and inadequate support from the legal service. The deadline for lodging an appeal is eight days from the delivery of the verdict to the competent authority (Art 191 Misdemeanor Act).

MENP: there is small amount of appeals being submitted by the MENP on first instance misdemeanor verdicts. MENP does not have administrative / legal capacity to adequately submit misdemeanor appeals. Also the internal organization of the MENP hampers that quality appeal is submitted on time. Namely, some particular verdict is being received by the central MENP office in Zagreb, and from the moment that MENP docket office receives a verdict the countdown of eight days starts. It takes the certain amount of time to distribute it to the inspector that is working on the case, e.g. in regional branch office. The MENP is not effectively organized in order that appeal is filed on time within the legal period of eight days. Also, if relevant inspector gets verdict on time, the inspector will not have adequate legal support services for the preparation of the appeal. Also **i**nspectors sometimes decide not to , because of the length of the overall procedure the case could be suspended because of the statute of limitations. Second instance misdemeanor court (the High Misdemeanor Court) is the one who is creating court practice in environmental misdemeanor cases and thus by not lodging the appeals adequate court practice in the field of environmental protection will not be created.

MENP official opinion, from the MENP annual report is, that misdemeanor pecuniary sanctions even though in most of the cases are below statutory prescribed minimum are effective mechanism to force violators to comply with the regulations in cases where there is their obvious and repeated refusal to apply the regulations. The official opinion of the institution (MENP) can be different from the personal opinion of interviewed MENP environmental inspectors.

Case study: misdemeanor offence – air pollution
Based on the report from environmental inspection (in 2011) misdemeanor proceeding is initiated against the firm (legal person) for the pollution of the air from stationary source. The measured was exceeding the limit values for emissions of volatile organic compounds. It represented the violations of the Air Protection Act. For the related offense misdemeanor sanctions were imposed (in 2013) for: legal person, 2000 HRK (app. 267 EUR) and for the responsible natural person 1000 HRK (app. 133 EUR). Otherwise the penalty for this offense is prescribed in the law between 100,000 (13.333 EUR) HRK and 300,000 HRK (40.000 EUR). The court used the provision on impairment of sanctions. The reasons for the impaired sanctions are mitigating circumstances: it is the first conduct of this kind of offense; after the inspection supervision, all measures to reduce emissions were undertaken. Court also pointed out that the offense did not originate any serious consequences. Court in its verdicts is stating that sanctions are individualized, appropriate to violation and to perpetrators. Therefore it is considered that it will achieve the purpose of punishment, will create deterrence effect in order that the same offenses or similar kind will not be repeated (Misdemeanour Court in Varaždin 2012).
Concluding remark: opinion of the competent environmental inspection is that the imposed fine is extremely small (for example the severity of traffic offenses sanctions are the same as sanctions imposed in this case). Inadequate sanctions will not cause deterrence effect, for the reason that investments in achieving compliance with environmental regulation are very high (could be millions of HRK) and imposed fines are extremely low. There is no economical incentive for the subjects to comply with the law. It also represents the court ignorance of the potential environmental consequences.

Sanctions imposed for environmental offences, according to the opinion of interviewees, are not sufficiently strict and thus are not causing deterrence effect toward perpetrators.

7.8. Inter-institutional cooperation in cases of environmental offences

The Agreement on Cooperation between Inspection Services in the Field of Environment (MENP 2015a) concluded between the ministry responsible for environmental protection and other ministries responsible for sea, agriculture, forestry and water management, the police and health ministry has brought enhanced cooperation and cooperation in environmental monitoring and detecting of environmental violations.

The opinion of different institutions on the current level of cooperation in cases of environmental violations has been indentified during interviews.

The Police: there is no systematic established cooperation between the police and environmental inspectors across the country. The level of mutual cooperation depends on cooperation at the local level; case to case based.

MENP: there are positive cases of successful cooperation in which the MENP is giving expert support to the police and the police are giving investigation support in cases of environmental offences. But there is no overall systematic established way of mutual cooperation on national level. There should be greater state institutions cooperation in cases of environmental offences. Efficient mutual cooperation is crucial. After conducted EU educations, in which also the Police was involved, the greater level of cooperation is recorded. The Police have taken proactive role, becoming more aware of environmental violations. E.g. the police contact the MENP, asking for advices, guidelines for further conduct in cases of environmental violations. In the future there is a plan to establish systematic and overall cooperation and the coordination of environmental enforcement bodies. The Memorandum of Understanding concerning the cooperation of the MENP environmental inspections and other relevant stakeholders in cases of environmental violations is in the phase of drafting. It is not known when all relevant bodies will validate the Memorandum.

From the side of the MENP inspection and the SA I got hold on description on one of the first environmental criminal cases that have resulted with final criminal court verdict according to the new Criminal Code.

Case study: environmental crime - endangering the environment with waste

The firm (legal person) that manufactures industrial equipment and conduct metal processing has illegally buried dangerous waste on the premises of its facilities in November 2011 and by it caused the degradation of the soil. During the investigation of violation, environmental inspection has requested the assistance of the Police in investigation (using a metal detector). Dangerous waste consisted out of waste paints and varnishes containing organic solvents. An authorized laboratory was engaged for soil and waste sampling. The firm was criminally prosecuted, convicted guilty for the illegal disposal of waste in a manner that endangered the quality of soil over a wide area in a way that can endanger the survival of plants. The firm (legal person) and the responsible person (natural person) were pronounced guilty. Legal person has violated the Law on waste by conducting illegal management of waste in a way that endangers human health and / or on a way that might harm the environment, cause the risk of contamination of water, soil and air pollution and endangering wildlife. The judgment was imposed in 2014. Sanctions were: to the natural person pecuniary fine of 5.250 HRK (app. 690 EUR) and to the firm pecuniary fine of 15.000 HRK (app. 2000 EUR), (MZOIP 2011).

Pic 1. Excavated metal barrels with hazardous waste (source: MZOIP 2011).

Concluding remarks: No appeal was made, so the case ended at first instance. The characteristic of the case is the complexity of the procedure. Even though there was no court hearing (the case got solved by using criminal penal order) the case lasted for three years. Taking into consideration that it is the matter of dangerous waste and that contamination and damage to the soil was caused, the amount of fine given to the legal and to the natural person is (according to the opinion of environmental inspectors) insufficiently strict (very low fine).

Cooperation on the investigation of environmental offences could be substantially upgraded, which would result with higher quality environmental investigations and to the submitted criminal charges of higher quality. While submitting environmental criminal charges in most of the times legal support is missing or is not adequate. Better quality criminal charges results with efficient processing of environmental offences. Because of lesser "inflow" of "serious" environmental cases to courts there is no adequately established environmental judicial practice, also judges have no opportunity to gain experience in environmental cases. Environmental court proceedings are often connected with difficulties in proving and formal obstacles in proceeding (e.g. unknown perpetrator, status of limitation etc.). Adequate judicial practice could provide solutions for number of uncertainties in environmental court cases; like defining vague notions in particular cases and finding more efficient ways of demonstrating evidence and establishing facts in front of the court proceeding. According to the opinion of interviews, sanctions imposed for environmental offences in most of the cases are lenient and do not reflect real danger/harm that can be caused with environmental violations.

Enforcement obstacles connected with lenient sanctions can deter enforcement bodies to initiate environmental cases and result with the lower level of processed environmental violations. That way "vicious circle" related to environmental offence prosecution can be created. Vicious circle occurs whereby most offences are not prosecuted. Courts gain little experience and impose lenient sentences. The low sentences discourage the regulatory body from bringing prosecutions (Adshead 2013). Other reasons for the low level of imposed sanctions are: the lack of judiciary familiarity with environmental law (relatively new field), moral condemnation for those offences is not very strong. Also the public or judges awareness of the possible harmful consequences of environmental violations could be low (Watson 2005). In order to break the "vicious circle" obstacles need to be prevailed in all stages of prosecution. In next chapter indentified recommendation for the more efficient prosecution of environmental offences will be presented.

VIII. RECOMMENDATIONS

Croatian legislation has successfully been harmonized with the EU environmental crimes Directive 2008/99/EC. Currently there is a need to enhance the enforcement of environmental regulations. It is important to focus on the practical application of the new legislation related to environmental crimes and misdemeanor offences. The most relevant recommendations that were indentified through interviews and thesis research merged with the conclusions of the implemented EU project (MENP 2011) are be presented.

The better cooperation of enforcement institutions related to detection

Environmental and other inspectors, who are well trained to recognize potential non-compliance with air, waste and other sectorial environmental legislation, do not have sufficient capacity to be constantly present in order to detect violations. Active cooperation from the side of the customs and the police who are on the field much more frequently is needed.

Better cooperation of enforcement institutions related to prosecution

A second group of stakeholders who are crucial for successful handling of environmental crime cases are state attorneys and judges. Without interest and understanding of state attorneys concerning the complexity of potential environmental crime cases files are not adequately prosecuted. State attorneys have a key role in deciding whether information forwarded to them contains sufficient grounds for further investigation with a view to file criminal charges to the court. For their successful work state attorney need support of environmental and other inspectors, as well as of police and the customs.

Enhanced cooperation between different line ministries and inspection bodies, as well as the Police and the Justice Sector

As outlined above, co-operation and communication between different stakeholders involved in environmental crime prosecution in Croatia is currently determined on a case by case basis. To achieve successful fight against environmental crimes and improved compliance with environmental legislation co-operation among a large number of stakeholders is required. Successful co-operation between the mentioned stakeholders requires unhindered and fast exchange of information between these institutions. Regular exchange of information and experience between Environmental Administration, Justice and Police sector and all other relevant stakeholders are of key importance to ensure preparedness and proper reaction when

a case occurs, and quick response is a key factor of successful detection and prosecution. Signature of a Memorandum of Understanding (MoU) on cooperation between stakeholders relevant for environmental Crime recognition, detection, investigation and prosecution is in a phase of negotiation between stakeholders. The MuO is important for the enhanced efficiency of environmental criminal enforcement. The draft foresees the MENP, Ministry of Interior, Ministry of Finance, Ministry of Justice and State Attorney Office as signatories and includes mutual co-operation, education, joint procedures, other joint activities (e.g. supervision). Also nomination of responsible persons (focal point) in each competent institution will be established. Defining mutual stakeholder's role in environmental offences prosecution would bring better cooperation, more efficient flow of information, better coordination and thus greater level of criminal prosecution of environmental offences. Signature, adoption and implementation of the draft is expected in (not sure how recent) future,

The specialization on environmental offences and related trainings inside the police

In the justice and police sectors regular trainings on environmental offences would be of high importance not only to pass on knowledge on new legislation and trends in the form of presentations, but also to provide a forum for discussion and exchange of experience among colleagues. Trainings on environmental offences for the uniformed police would be useful because it is the uniformed police who in most of the cases detects and has the possibility to quickly react on incidents they spot and on information they receive. Also, setting up and training of specific enforcement unit within the Criminal Police for more complex environmental cases.

Reinforced legal support to the inspectors

To the understanding of the author currently there is limited expertise regarding environmental crime as laid down in the Criminal Code inside the MENP. If environmental inspectors have knowledge of environmental crimes it is due to private initiative or experience from previous cases. Knowledge on environmental crimes is based on individual inspector experience and not on a systematically established knowledge. The environmental inspections would benefit from building their own legal expertise on environmental crimes.

Strong involvement and support of legal experts and lawyers in the work of inspectors is very helpful to achieve good results. This applies to all types of inspection work, but especially to the detection and prosecution of environmental crimes. For successful implementation and enforcement of environmental legislation including indictments for misdemeanor proceedings

as well as for criminal charges it is very important that environmental inspectors can consult with an experienced lawyer within the ministry at short notice.

The current lack of legal support results in pitfalls in meeting the legal requirements when preparing the proposals for misdemeanor or criminal charges. The changes of current ministries practice regarding criminal enforcement are needed. Consultation, whether some non-compliance with environmental legislation should be considered a misdemeanor or criminal offence and whether to initiate either misdemeanor or criminal procedure, needs to be established as a systematic approach. Enhanced cooperation and consultation in compiling and submitting misdemeanor (indictment proposals, misdemeanor warrant) and criminal charges, as well as enhanced cooperating in writing well-justified and well-grounded appeals against Misdemeanor Court decisions is needed. Lawyers, supported by environmental inspectors should represent the Ministry in front of the Misdemeanor Courts. It is necessary to increase the number of lawyers dealing with both environmental protection legislation and misdemeanor and criminal proceedings and to strengthen the level of cooperation between inspectors and lawyers in all phases of environmental misdemeanor/criminal proceedings (from initiating misdemeanor/criminal proceedings, representation in front of the Misdemeanor Court, appeal procedure, etc.).

Compulsory involvement of legal experts/lawyers in the preparation of misdemeanor and criminal charges is needed to be established as operating procedure within the ministries. Also regular and systematic education of ministry lawyers regarding relevant aspects of environmental law is needed. Enhanced legal support could result with higher number of lodged appeals in environmental misdemeanor proceedings, which would result with greater judicial practice.

Establish 24 hours service in environmental inspections for urgent cases

At the moment environmental inspectors are on duty only during working hours. There is not around the clock service and no contact person, e.g. for the police or the state attorney, in cases where they would need the expert knowledge of environmental inspectors. Environmental inspector who can be reached also during the night by other state competent bodies would be beneficial.

Establish environmental specialization in State Attorney Offices, Criminal Courts and Misdemeanor Courts

Specialized state attorneys for environmental crimes could be established. As there is currently low number of environment cases it is not justified that state attorneys only cover environment cases, but specialization as an addition to its regular duties. State Attorneys need proper training in both legal and technical aspects of environmental crime prosecution. They should have the ability to give rough estimations of potential risks of certain incidents, so they can decide whether to initiate investigations. Because of small amount of environmental cases the Ministry of Justice consider that there is no need for the environmental specialization of judges. Nevertheless trainings and certain level of specialization on environmental offences of (misdemeanor and criminal) court judges could be conducted in order to raise efficiency of judicial system.

Increase the number of environmental inspectors (branch offices)

To provide adequate administration staff capacity that is dealing with environmental enforcement, the number of inspectors who deal with environmental issues needs to be increased to allow effective inspection implementation, especially to increase the number of environmental inspectors in branch offices. Also to provide enforcement officers to be adequate technically equipped, e.g. official vehicles and technical inspection equipment.

The determination of vague notions

There should be clearer distinction between the criminal offences and misdemeanors in the relevant legislation. Good practice would be adoption of bylaws by which vague notions are more precisely defined. E.g. amount of which type of waste would be considered as a criminal offence Legislative authority are implementing it. Higher cooperation between all enforcement authorities need to be established in order to properly protect subject procedural rights and to prosecute environmental offences. Established protocol of cooperation between the bodies is a good way of dealing with it. Also, through extensive judicial practice vague notions could be defined in particular cases. All those actions would contribute to legal certainty and higher efficiency of criminal prosecution.

The education of enforcement bodies on environmental offences

So, far there were ad hoc educations based on EU projects. There should be regular systematic education for enforcement authorities which could be conducted by the Judicial Academy

(public institution that conduct trainings for judicial and administrative sector). Adequate training for the customs and police staff, starting already at police academy level, but also for members of the judiciary, with joint training exercises and courses (internationally) is needed. Such trainings and seminars should ideally be supported by jurisdictions with best practice experience (EnviCrimeNet 2015). Education of court judges on the environmental legislation, on the most relevant cases from practice. Also, workshops could be conducted on the meaning of vague notions in practical cases, what kind of environmental endangerment/harm it takes that something is considered as a criminal offence. Taking into consideration that inspectors are drafting legal documents and that there are a constant legislation changes, continuous education of inspectors in the field of relevant enforcement legislation is very much needed. Environmental education of the police is needed. Mandatory course related to the environment protection could be introduced at the Police Academy. The continuous education of the regular police (for more efficient detection) and police management (for prioritizing the environment) is needed.

The creation of multi-agency platforms or partnerships such as Interpol National Environmental Security Task Force (NEST) with embedded representatives from all relevant institutions could be created. It would perform collection and analysis of data from all types of environmental authorities and NGOs and to have investigative powers. It would enhance international cooperation (EnviCrimeNet 2015).

Uniform environmental statistic

Uniform environmental statistic could be established. It would include data from all relevant institutions on detected environmental violations, initiated proceedings and the results of those proceedings. This would provide an overview of the entire environmental enforcement system and enable deeper analysis. Based on overall, deeper analysis further steps to raise the efficiency of enforcement could be made. For example the MENP has started to consolidate and establish statistic overview on misdemeanor environmental statistic. Also, all ministries that are having inspection competent for environmental protection should make annual report and make them public. So, far only the MENP has legal obligation to do so, so they are only one that are conducting it.

Prevention and not just sanctioning

The creation of a relationship of trust and co-operation between the company and the inspector can sometimes be more effective for reaching environmental protection goals than the use of punishment measures. Excessive use of fines might decrease motivation and create a legal battlefield, as companies react with challenging all authorities' decisions and hiring lawyers to find loopholes in legislation.

Raise public awareness on environmental offences

One can improve compliance by raising detection rate or by increasing expected sanctions (Faure and Heine 2005). Activities to raise public awareness are needed, which should increase detection and reporting of environmental crimes. High majority of interviewees are supporting that courts should impose higher sanctions. Also, if there is the case of recidivism increased sentence should be imposed. Higher court sanctions also are raising public awareness on moral condemnation of environmental violations.

IX. CONCLUSION

Croatian accession to the EU resulted with environmental protection requirements. One of them was the establishment of effective criminal protection of the environment. Croatia has successfully transposed EU environmental legislation, however efficient level of environmental enforcement needs to be implemented in practice. There is the lack of Comprehension on the prosecution of environmental offenses in Croatia. Without analytical support it is difficult to identify problems or to develop overall effective plans for enforcement improvements.

The conducted research showed that in Croatia there is a small amount of environmental criminal offences in the sense of the Directive. By conducting interviews with relevant stakeholders and analyzing existing statistical data; the reasons are identified throughout this thesis. Criminal offences against the environment are insufficiently detected, recognized as environmental crimes, and reported to competent institutions. There are obstacles in all segments of environmental offenses prosecution which reduce the effectiveness of environmental enforcement system.

Public and institutional environmental awareness is influencing the level of environmental violations detection by the citizens and the police. With a lower level of detection, there is a lower "inflow" of cases toward the State Attorney office. Lower quality

criminal charges are influencing the lower level of raised indictment and in the end, the lower level of resolved cases. The MENP (the main state body for coordinating environmental protection) does not have adequate system for prosecuting criminal and misdemeanor offences. Environmental cases are still a somewhat unknown territory for Croatian judiciary. Judges are rarely working on environmental cases and there is a noticeable lack of education. With a lower amount of environmental cases there is no adequately established court practice. In adjudicated cases often low sanctions are imposed.

Uneven court practice, unclear legal definitions of environmental crime and low court sanctioning may deter initiation proceedings in cases of environmental violations. Criminal court must satisfy all legal standards required for environmental violations to be declared a criminal offence. Even if the whole enforcement system is functioning efficiently it is very demanding to prove environmental criminal offence in front of the court

With greater environmental education, better stakeholder's coordination and cooperation, the enhanced organization of state institutions, more administrative and budget funds the vicious circle of low level of detection, prosecution and conviction for environmental crimes might be broken. To achieve adequate deterrence effect it is important to achieve a prompt detection, efficient prosecution and the adequate sanctioning of environmental offences in order to influence the perception of potential perpetrators that environmental offence is not profitable.

The effectiveness of criminal law cannot be measured by merely looking at the severity of criminal sanctions. In addition, other legal instruments, civil and administration, and enforcement policy are playing an important role in creating the deterrence effect. A more in-depth analysis is required in order to establish a level of environmental enforcement, relevant obstacles and systematic solutions for raising enforcement efficiency. Crucial element is decision makers' political will in order for the environmental protection to become a priority in Croatia.

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