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A. Introduction

Over the past 40 years, the EU has adopted a diverse range of environmental measures aimed at protecting and improving the quality of the environment. Today, the EU environmental acquis consists of some 200 legislative acts. Several acts are dedicated to the protection of biodiversity in the European Union, most notably the Birds Directive¹ and the Habitats Directive². Commonly referred to as the "Birds and Habitats Directives", the two Directives constitute the two main pieces of EU legislation regulating biodiversity protection in the European Union.

The effectiveness of EU environmental law is often undermined by poor implementation and enforcement at the national level leading to substantial damage of the environment. In pursuit of better implementation and enforcement of EU environmental law, the EU has adopted two Directives, which are also relevant for the protection of biodiversity in the European Union. Directive 2004/35/EC on the Prevention and Remedying of Environmental Damage³ (Environmental Liability Directive, ELD) provides for an EU system of environmental administrative liability. Based upon the polluter pays principle and established as a public law regime, the Directive sets minimum standards of financial liability for the prevention and remedying of environmental damage. Directive 2008/99/EC on the Protection of the Environment through Criminal Law⁴ (Environmental Crime Directive, ECD), in turn, provides for minimum standards of criminal liability for environmental damage by obliging Member States to enforce a large number of EU environmental law provisions through criminal law. The Environmental Liability and the Environmental Crime Directive list the Birds and Habitats Directives as falling within their scope.

The aim of the thesis is to examine to what extent the introduction of administrative liability (ELD) and criminal liability (ECD) for environmental damage, has been able to improve the implementation and enforcement of the Birds and Habitats Directives and to identify in this

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¹ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds, OJ L 20, 26.1.2010

² Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, OJ L 206, 22.7.1992

³ Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on Environmental liability with regard to the prevention and remedying of environmental damage, OJ L 143/56, 30.4.2004

⁴ Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law, OJ L 328, 6.12.2008

way challenges and opportunities for the role of environmental administrative and environmental criminal liability in the protection of biodiversity in the European Union.

B. Background

In 2001 the Gothenburg European Council adopted the EU sustainability strategy, which also formulated a clear objective for biodiversity policy:

"Protect and restore habitats and natural systems and halt the loss of biodiversity by 2010." 5

In 2010, it was evident that the EU had failed to achieve this target and the Council instructed the Commission to draft a new strategy. In 2011, the European Commission adopted its EU biodiversity strategy to 2020⁶ with the headline target of

"Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as is feasible, while stepping up the EU contribution to averting global biodiversity loss".

According to recent data on Europe's biodiversity, achieving this target remains a serious challenge: 60% of species assessments and 77% of habitat assessments continue to be in unfavourable conservation status. In its 2015 mid-term review of the European Union's 2020 biodiversity strategy, the Commission concludes that progress had been insufficient. Several stakeholders have subsequently underlined the importance of full implementation and enforcement of the Birds and Habitats Directives for meeting the headline target of the strategy. In its resolution on the mid-term review, the European Parliament stresses that full implementation and enforcement of the Birds and Habitats Directives is a "vital prerequisite" for meeting the headline target of the strategy. And in its own mid-term assessment of the biodiversity strategy, the NGO BirdLife strongly recommends better implementation and enforcement of the Birds and Habitats Directive. This coincides with research supporting the Commission's Fitness Check of the Birds and Habitats Directives, which concludes that the two Directives must be fully implemented and enforced if the EU is to stand any chance of

⁵ COM (2001) 264 final, 15.4.2001

⁶ COM (2011) 244 final

⁷ Report of the European Environment Agency "The European Environment-state and outlook 2015" ("SOER 2015"), available at: http://www.eea.europa.eu/soer-2015/europe/biodiversity

⁸ COM (2015) 478 final

⁹ European Parliament resolution of 2 February 2016 on the mid-term review of the EU's Biodiversity Strategy (2015/2137(INI))

halting biodiversity loss by 2020.¹⁰ Implementation and enforcement problems with the Birds and Habitats Directives are well documented by a wide range of cases brought before national courts and the Court of Justice of the European Union (CJEU).¹¹

I. The Birds and Habitats Directives

Adopted in 1979 and amended in 2009, the aim of the Birds Directive is to protect naturally occurring wild birds and their habitats within the European Union. The Directive seeks to obtain its objectives through a combination of site and species protection measures, supported by monitoring and research measures. Adopted 13 years later, in 1992, the Habitats Directive introduces similar measures and covers around 1000 other rare, threatened or endemic species of wild animals and plants and protects some 230 rare habitat types in their own right.

The Birds and Habitats Directives are also key tools in delivering on EU commitments under international conventions and agreements, such as the Convention on Biological Diversity, the Bern Convention on European Wildlife, the Convention on Migratory Species and the African Eurasian Waterbird Agreement.

The Birds and Habitats Directives require the Member States to implement two main sets of provisions:

- 1. The designation of core sites for the protection of species and habitat types listed in Annex I and II of the Habitats Directive and Annex I of the Birds Directive, as well as for migratory birds. These designated sites form part of a coherent ecological network of nature areas and are referred to as the European Natura 2000 Network.
- 2. A strict protection regime for all wild European bird species and other endangered species listed in Annex IV of the Habitats Directive, both inside and outside Natura 2000 sites.

Under Article 4(4) of the Birds Directive and Article 6(2) of the Habitats Directive Member States are required to take appropriate steps to avoid pollution or deterioration of habitats or any disturbance affecting birds and species. Also relevant here is Article 6 (3) of the Habitats Directive, which requires that any plan or project likely to have a significant effect on a Natura 2000 site is to be assessed 'in view of the site's conservation objectives'. In case of a negative assessment, a project or a plan can only be authorized if the conditions set out in

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¹⁰ Milieu Ltd.et al.: "Evaluation Study to support the Fitness Check of the Birds and Habitats Directives" Draft Final Report 4 January 2016.

¹¹ For an overview: Sundseth, Kerstin; Roth, Petr: "Article 6 of the Habitats Directive: Rulings of the European Court of Justice", (European Commission Contract), 2014; European Commission: "Nature and Biodiversity Cases Ruling of the European Court of Justice", 2006.

Article 6 (4) are satisfied, namely 'absence of alternative solutions', 'imperative reasons of an overriding public interest' and 'compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected'. The provisions under Article 6(2), 6(3) and 6(4) of the Habitats Directive also apply to the Special Protection Areas protected under the Birds

Directive. 12

The provisions under Article 6, particularly Article 6(3), have provoked considerable disagreement and confusion over their interpretation and implementation and have resulted in

numerous interventions from the Commission and CJEU cases.¹³

Regarding generic species protection, articles 12 and 13 of the Habitats Directive require Member States to "take the requisite measures to establish a system of strict protection" for the animal and plant species listed in Appendix IV to the Directive. Member States are required to establish prohibitions inter alia on the killing, capturing and disturbing of individual animals belonging to species from Annex IV, and on the "deterioration or destruction of breeding sites or resting places." Articles 5 to 6 of the Birds Directive set out

similar provisions.

CJEU rulings have clarified that Member States are not only required to prohibit the acts in question but also have to take all measures necessary to ensure that the prohibitions in

question are not breached in practice.¹⁴

Numerous judgments of the CJEU seem to have reduced some of the uncertainties concerning the interpretation and implementation of the Birds and Habitats Directives. However, the continuing high share of court cases in this field as well as the significant number of reported breaches under those Directives, show that a compliance deficit remains.¹⁵

¹² Habitats Directive, Art 7

¹³ For an overview: Sundseth, Kerstin; Roth, Petr: "Article 6 of the Habitats Directive: Rulings of the European Court of Justice", (European Commission Contract), 2014.

¹⁴ See Case C-103/00 Commission v Greece [2002] ECR I-1147; Case C-518/04 Commission v Greece [2006] ECR I-42; and Case C-221/04 Commission v Spain [2006] ECR I-4515.

¹⁵ Milieu Ltd.et al.: "Evaluation Study to support the Fitness Check of the Birds and Habitats Directives" Draft Final Report 4 January 2016, p.48

II. The Environmental Liability Directive (ELD): Administrative Liability for Environmental Damage

On 21 April 2004, Directive 2004/35/EC on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage ("ELD") was adopted by the European Parliament and the Council of the EU with the objective to establish a common European framework of administrative liability for environmental damage. ¹⁶ "Environmental damage" in the Directive is defined as damage to protected species and habitats, water and land. ¹⁷

Under the ELD, any operator whose activities cause an imminent threat of environmental damage or an actual environmental damage is to be held financially liable for preventing or remedying the damage, respectively. The directive gives direct expression to the "polluter pays" principle, enshrined in Article 191 (2) of the Treaty on the Functioning of the European Union. By exposing the operator to financial liabilities for environmental damage, the EU legislator hopes to "induce operators to adopt measures and develop practices to minimize the risks of environmental damage, so that their exposure to financial liabilities is reduced".¹⁸ Ultimately, the application of the ELD regime is expected to result in reducing the number of future contaminated sites and in slowing down biodiversity loss in the EU.¹⁹

Damage to protected species and habitats is defined in the Directive by direct reference to the Birds Directive and the Habitats Directive. ²⁰ The threshold at which an operator must carry out measures under the ELD to remediate ecological damage is a "significant adverse [effect] on reaching or maintaining the favourable conservation status of…habitats or species [protected by the Habitats and Birds Directive]. ²¹

The damaged natural resources or impaired services must be restored or replaced by identical, similar or equivalent natural resources or services either at the site of the incident or, if necessary, at an alternative site.²²

¹⁶ ELD recital 3

¹⁷ ELD Art 2(1)

¹⁸ ELD recital 2

¹⁹ ELD recital 1

²⁰ ELD Arts 2(1)(a),2(2),2(3), 2(4) and Annex 1

²¹ ELD Art 2(1)(a)

²² see ELD Annex II

The regime established by the ELD is a public law regime, requiring public authorities to ensure that the polluter is held liable. The Directive does not provide for private law compensation: personal injury, damage to private property or economic loss are expressly excluded from the scope of the directive.²³

An important feature of the Directive is, that NGOs and individuals are entitled to request authorities to take action against operators²⁴ and to challenge the decision as well as inaction of the authority before a court or tribunal.²⁵

The transposition deadline for Member States to incorporate the Directive into national legislation was 30 April 2007. The ELD has no retrospective effect and therefore only applies to damage that occurred after 30 April 2007.²⁶

The transposition process of the ELD was particularly lengthy. Only four Member States²⁷ met the transposition deadline of 30 April 2007.²⁸ Infringement procedures against 23 Member States²⁹ reduced the number of non-compliant countries, but the Commission still had to refer a number of cases to the European Court of Justice, which gave judgment against seven Member States in 2008 and 2009.³⁰ While the implementation of EU directives is well known to raise issues, the ELD appears to have created a "plethora of significant implementation problems"³¹. Interpretation issues and the application of optional provisions have been criticised for creating a "patchwork of liability systems for preventing and remedying environmental damage across the EU^{4,32} and bearing the risk of jeopardising the proper functioning of the Directive.

²³ ELD recital 14, Art 3(3)

²⁴ ELD Art 12

²⁵ ELD Art 13

²⁶ ELD Art 17

²⁷ Italy, Lithuania, Latvia and Hungary; Source: Commission: "Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions under Art 14(2) of Directive 2004/35/EC on the ,environmental liability with regard to the prevention and remedying of environmental damage" [2010]581(,EC 2010 Report'), p.3

²⁸ EC (2010) Report under Art 14(2) ELD, p.3

²⁹ EC (2010) Report under Art 14(2) ELD, p.3

³⁰ France, Finland, Slovenia, Luxembourg, Greece, Austria and UK; Source: European Commission (2010) Report under Art 14(2) ELD, p.3

³¹ L.Bergkamp (2005) "Implementation of the environmental liability directive in EU member states"

³² Stevens & Bolton LLP (2013)"The Study on Analysis of integrating the ELD into 11 national legal frameworks, Final Report prepared for the European Commission (DG Environment)".

Preliminary rulings³³ on the Directive seem to have clarified some of the Directive's provisions concerning the causal link, secondary liability and remedial measures under the ELD. Following its obligation from Article 14(2) ELD and Article 18(2) and (3) ELD the Commission published two reports on the effectiveness of the ELD in 2010³⁴ and 2016³⁵ respectively.

III. The Environmental Crime Directive (ECD): Criminal Liability for Environmental Damage

The Environmental Crime Directive covers acts that violate environmental legislation and cause significant harm or risk to the environment and human health. The Directive emerged in response to the growing notion among EU policy makers, that traditional forms of enforcement of environmental law through administrative sanctions were insufficient to curtail environmental crime. The appropriate legal basis for the harmonisation of environmental criminal law in the EU was strongly contested by the European Commission and the Council and became the subject of two judgments from the ECJ³⁷, before Directive 20008/99/EC on the protection of the environment through criminal law was finally adopted by the European Parliament and the Council of the EU on 19 November 2008. The objective of the Directive is to achieve "complete compliance with laws for the protection of the environment" and in this way "ensure a more effective protection of the environment".

The Directive obliges Member States to enforce a large number of EU environmental law provisions through criminal law by requiring them to treat certain activities that breach EU environmental legislation as criminal offences. In Article 3, the ECD lists nine offences that must be considered criminal offences by all Member States if committed intentionally or with serious negligence. Artt. 3 (f) and (h) relate to breaches of the Birds and Habitats Directives,

³³ Raffinerie Mediterranee (ERG) SpA v Ministero dello Sviluppo economico, Case C-378/08, [2010]; Raffinerie Mediterranee (ERG) SpA v Ministero dello Sviluppo economico, Case- C-379/08 and Case C-380/08 [2010]; Ministero dell'Ambiente e della Tutela del Territorio e del Mare v Fipa Group Srl Case C-534/13, [2015].

³⁴ COM (2010) 581 final

³⁵COM (2016) 204 final

³⁶ See amended proposal for a Directive of the European Parliament and of the Council on the Protection of the Environment through Criminal Law, Com(2002)544 Final - OJ C 20E of 28/01/2003, p. 284: only "criminal sanctions for the most serious environmental offences [seem] adequate, and dissuasive enough, to achieve proper implementation of environmental law."

³⁷ Commission of the European Communities v Council of the European Union, Case C-176/03; Commission of the European Communities v Council of the European Union, Case C-440/05

³⁸ ECD recital 3

³⁹ ECD recital 14

including the killing, destruction, possession or taking of specimens of protected wild fauna or flora species⁴⁰ and the significant deterioration of a habitat that form part of the Natura 2000 network⁴¹. The Directive does not determine the type and the level of sanctions. These are left to the discretion of the Member States with the only requirement that the sanctions must be "effective, proportionate and dissuasive". ⁴²

The Directive had to be transposed by Member States by December 2010. One of the issues that arose during the implementation process is the use of a number of rather vague notions in the Directive, such as "substantial damage", "non-negligible quantities or impacts" or "significant deterioration", leading to different interpretations in the Member States. Moreover, the implementation of the Directive has resulted in significant differences in Member States' systems of sanctions, concerning both the level of sanctions as well as the types of sanctions available.

C. Research Problem & State of Research

Liability rules for environmental damage can have the effect of providing strong incentives to consider the impact of decisions on the environment. There are, however, divergent views on the comparative advantages of using civil, administrative and criminal penalties for addressing environmental offences. Ideally, civil, administrative and criminal law should complement each other.

Since the adoption of the ELD in 2004 and the ECD in 2008, a considerable amount of research has been published on the effectiveness of the two directives. Several implementation and evaluation studies launched by the Commission provide a wealth of data on the implementation and enforcement of the ELD directive in EU Member States. Reports by the Member States on the experience gained in the application of the ELD also contribute to the evidence base. As to the implementation and enforcement of the ECD, the EU funded research project "European Action to Fight Environmental Crime" (EFFACE) published numerous papers on the effectiveness of the ECD over the course of the last four years. Research by economists and other social scientists has also contributed to the empirical evidence concerning the effectiveness of liability rules for environmental damage.

⁴⁰ ECD Art 3(f)

⁴¹ ECD Art 3 (h)

⁴² ECD Art 5

Despite the amount of research dedicated to the effectiveness of both the ELD and the ECD, only few legal scholars have endeavoured to explore their interplay and their ability, in their current design, to use the complementary aspects of administrative and criminal liability. Likewise only few analytical studies have endeavoured to investigate the potential of the ELD and the ECD to contribute to the protection of biodiversity in Europe by fostering the implementation and enforcement of the Birds and Habitats Directives.

D. Aim of the thesis

The aim of the thesis is to examine to what extent the liability rules introduced by the European Union in 2004 and 2008 respectively have been able to improve the implementation and enforcement of the Birds and Habitats Directives, curb biodiversity damage and secure remediation of the environment where damage has taken place. It will then go on to assess whether amendments in the design and wording of the Environmental Liability Directive and/or the Environmental Crime Directive could lead to better implementation and enforcement of the Birds and Habitats Directives.

E. Research Questions

In summary, it is the aim of this thesis to:

- 1. Identify relevant links between the Birds and Habitats Directives and the Environmental Liability and Environmental Crime Directive ("Liability Directives") as well as other international legal instruments, such as the Convention on Biological Diversity adopted at the Earth Summit in Rio de Janeiro in June 1992, the Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971; the Bonn Convention on Conservation of Migratory Species of Wild Animals, 1979; the Washington Convention on International Trade in Endangered Species, 1973; the Bern Convention on the Conservation of European Wildlife and Natural Habitats, 1979; the African Eurasian Waterbird Agreement, 1995; as well as the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, 1998 and the Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment, 1993.
- 2. Examine problems with the implementation and enforcement of the Birds and Habitats Directives, summarise key lessons learnt on the interpretation and implementation of the two

Directives from the EU case law and draw conclusions on the role of enforcement actions

before national and EU courts in promoting better implementation of the Directives.

3. Assess the role of the ELD (administrative liability) and ECD (criminal liability) in the

implementation and enforcement of the Birds and Habitats Directives. For this matter

investigate the interplay of the Liability Directives and the Birds and Habitats Directives,

especially for overlaps, gaps and/or inconsistencies that may hamper a more effective

implementation and enforcement of the Birds and Habitats Directives;

4. Examine, in the context of biodiversity damage, the comparative advantages or

disadvantages of administrative vs criminal vs civil remedies. Investigate to what extent the

design and wording of the ELD and ECD are sufficiently integrated to use the complementary

aspects of administrative and criminal liability for biodiversity damage;

5. If indicated, investigate potential gains from greater integration of the liability directives;

6. Synthesise findings and identify scope for amendments.

F. Research Methodology/Approach

The research will start with an examination of the Birds and Habitats Directives. The thesis

will first discuss the scope and content of the main substantive provisions regarding the

protection of species and habitats. Subsequently the focus will shift to the status of the

implementation and enforcement of the Birds and Habitats Directives taking into account the

extensive and growing jurisprudence of the CJEU on the Birds and Habitats Directives.

The thesis will then move on to examine the role of the ELD (administrative liability) and

ECD (criminal liability) in the implementation and enforcement of the Birds and Habitats

Directives. A critical mass of available data on the implementation record and difficulties

with liability for biodiversity damage in some key European Member States will be

researched and examined. Selected case studies are used to examine the application of the two

directives and illustrate potential outcomes and scope for amendments.

Relevant international legal instruments, such as the Aarhus Convention and the Bern Convention on Biological Diversity, will be dealt with appropriately. A comparative approach is used to understand alternatives to and different outcomes of other liability regimes (e.g. US Superfund legislation).

The research will draw on:

- Literature and Case Law.
- The evidence base for the Environmental Liability Directive created inter alia by the Member States reports of 2013, the evaluation studies launched by the Commission in 2012 and 2013, the conclusions from the Commission ELD report 2010, the Commission ELD report 2010 and the accompanying Staff Working Document and the recently published Commission ELD report 2016 and accompanying Staff Working Document as well as future studies and reports hereon.
- The empirical research conducted in the context of various studies, including numerous studies conducted in the context of the EFFACE⁴³ research project, which dealt with environmental crime in the European Union.
- Comparison of law and practice on this matter outside the EU and in the Member States
 themselves. The comparative approach is used to understand alternatives to and different
 outcomes of other liability regimes.
- Studies in the field of environmental economics to the extent that it is appropriate and reasonable in a legal dissertation.

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⁴³ EFFACE – short for "European Union Action to Fight Environmental Crime": http://efface.eu

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H. Relevant Literature

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I. Work Plan: Outline

In addition to completing the mandatory courses stipulated in the curriculum of the Doctoral Program in Law, I intend to organize my research work over the course of the next 3 years as follows:

	Work Plan Outline
Year 1	Locate and organize secondary research materials.
	Research foreign sources on the subject for comparative studies.
	Analyse research material in appropriate detail.
	Research and evaluate relevant case law.
	 Categorise into key issues and sub-issues.
	 Draft first outline of thesis.
Year 2	• Synthesize various sources, further categorize findings into issues and
	sub-issues.
	 Identify suitable case studies.
	• Assess options for amendments of current EU legislation, both at the
	technical legal and political level.
Year 3	Synthesize various sources.
	 Update and verify authorities.
	■ Draft conclusion.
	 Defend and publish thesis.