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Wed. 30/8, 13.30-15.15	Session I.A *Environmental sustainability and governance* Room: A1-01.01 Chair: Wybe Douma **1. Moritz Reese:** What makes environmental law sustainable? Regulatory keys to environmental sustainability **2. L.S. Braaksma & K.J.de Graaf:** Regulating Environmental Utilisation Space in the future Dutch Environment and Planning Act: Obstacles and Incentives **3. Renske Giljam:** Implementing ecological governance through the extended use of 'Best Available Techniques **4. Hana Müllerová:** Sustainability as a myth; or how to enliven the concept?	Session I.B *EU nature protection law I* Room: A1.01.15 Chair: Chris Backes **1. An Cliquet:** The Fitness Check of the EU Nature Directives: the Directives are fit for purpose, now implement them! **2. Emma Lees:** The Precautionary Principle in Habitats Protection: Obscuring Scientific Conflict and the Proper Judicial Role **3. Veera Salokannel:** Nature Values and Imperative Reasons of Overriding Public Interest **4. Vojtech Vomacka:** Balancing Biodiversity Protection and Other Public Interests: Czech Approach	Session I.C *Marine environment and activities* Room: A1.01.14 Chair: Sanja Bogojevic **1. Christian Prip:** Regulation of marine aquaculture in Norway and Denmark – can growth in the industry and protection of the marine environment be combined? **2. Yuan Yang:** Preventing major accidents in offshore oil and gas operations: how effective is EU Offshore Safety Directive? **3. Hannah Morriss:** A Study of the Marine Laws Surrounding Sustainable Development Goals with Regards to Sustainable Development and Conservation Using Artificial Reefs	Session I.D *Waste management I* Room: A1.01.13 Chair: Katerina Mitkidis **1. Marta Cenini:** Landowner's liability and waste management: perspectives from private law **2. Topi Turunen:** Deconstucting the precautionary measures of waste legislation and environmental protection - Case of end-of-waste regulation **3. Alina Lehtonen:** Towards resource efficiency - utilization of industrial waste materials as part of a circular economy	Session I.E *EU air quality legislation* Room: A1.01.12 Chair: Volker Mauerhofer **1. Delphine Misonne:** So many plans, so many programmes: Is this the right approach to air pollution control **2. Ilona Jancarova:** Significance of Air Quality Plans in the Czech National Regulation **3. Małgorzata Smolak:** The enforceability of EU air quality legislation in relation to target values

Wed. 30/8 15.45-17.30	Session II.A *Rights based approaches* Room: A1-01.01 Chair: Rosalind Malcolm **1. Nathalia Kobylarz:** Ensuring ecological sustainability by means of litigation before the European Court of Human Rights **2. Valerie Fogleman:** Human Health and the Environment: Time for a New Approach to Environmental Law **3. Jeronimo Basilio São Mateus:** Fostering environmental protection through religious freedom rights **4. Santiago Vallejo Galarraga:** Towards the Rights of Mother Earth (Perspectives, Challenges and Opportunities)	Session II.B *EU nature protection law II* Room: A1-01.15 Chair: An Cliquet **1. Hendrik Schoukens:** Adaptive management as novel permitting strategy within the context of Natura 2000: lessons to be learnt from recent case-law developments before the CJEU? **2. Tom Chambers:** Coming In On One Wing And A Prayer: Navigating Compliance with the EU Wild Birds and Habitats Directives **3. Minna Pappila:** Forestry and the no net loss of biodiversity principle	Session II.C *Water governance and legislation* Room: A1-01.14 Chair: Bjørn-Oliver Magsig **1. L. Squintani & M.v. Rijswick:** Towards more effective protection of water resources **2. Henrik Josefsson:** Coherence and coordination under the Water Framework Directive **3. Niko Soininen & Antti Belinskij:** Bringing back environmental flows: The case of salmon and the lack of legal adaptivity in Finnish rivers **4. Johanna Söderasp & Maria Pettersson:** Adaptive water governance in Swedish case law - analysing the legal application of environmental quality standards for water	Session II.D *Circular economy* Room: A1-01.13 Chair: Kurt Fassbender **1. Cathrin Zengerling:** Sustainable Management of Natural Resources – The Role of European Cities **2. Thomas de Römph:** Potential for the Circular Economy transition? The broadening of the scope of the Ecodesign Framework Directive - a case study on wooden products **3. Grit Ludwig:** Cascading use of wood in Germany: Proposals for a reform of the legal framework **4. Andrea Keessen:** Manure: from resource to waste and back to resource?	Session II.E *Balancing and allocation instruments* Room: A1-01.12 Chair: Kars de Graaf **1. Wolfgang Köck:** Demand assessments in German infrastructure law as an instrument for strengthening environmental protection – German experiences and a scope for improving **2. Anna Silvia Bruno:** Environmental protection and policies of social cohesion. A new role for the Italian metropolitan cities. **3. Jens Weuthen:** The cumulative assessment under Art. 6(3) of the Habitats Directive as an allocation problem

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Thur. 31/8 9.00-10.45	Session III.A *Arctic challenges* Room:A1-01.01 Chair: Gabriel Michanek	Session III.B *Biodiversity and species protection* Room:A1-01.15 Chair: Sandrine Maljean-Dubois	Session III.C *Climate change and water management* Room: A1-01.14 Chair: Marjan Peeters	Session III.D *Cost-benefit distribution and environmental justice* Room: A1.01.13 Chair: Bernard Vanheusden	Session III.E *Institutional challenges in international marine and water law* Room: A1-01.12 Chair: Christian Prip
	1.. Tanja Joona: Indigenous peoples right to natural and mineral resources – reflections from the ILO 169 **2. Nana Harbo**: How can EU play a role in protecting the ecosystems in the Arctic? **3. Alena Kodolova & Alexander Soltsnev:** Legal problems of restoration of the disturbed areas in the artic zone of the Russian Federation	**1. Jan Darpö:** Protection of Species in Environmental Decision-making - An interdisciplinary research project on the integration of scientific evidence in administrative and judicial decision-making **2. Tilak Ginige, Alice Webb & Merve Demir:** Are EU and UK nature conservation policy and legislation effectively regulating species reintroduction attempts? **3. Kenji Kamigawara:** Legal development to manage established invasive alien plants - case studies on water primrose in Japan, France and UK	**1. Robin Kundis Craig:** Climate Change and the Incorporation of Resilience Theory into Adaptive Water Governance **2. Samvel Varvastian:** The Developing Atmospheric Trust Litigation in the United States: Climate Change and the Constitutional Obligation to Protect Natural Resources **3. Panithan Tiempetch:** Notification and Prior Consultation Procedures in Mekong River Basin: How can the UNECE Conventions and UN Watercourse Convention be guidance in improving their procedural mechanism? 4. **Lasse Baaner:** Adaptive Environmental Law – Examples from Danish Water Law	**1. Anita Rønne:** Managing a Sustainable Distribution of Costs and Benefits in Natural Resources Projects **2. Annalisa Savaresi:** Distributing the benefits and burdens associated with the energy transition: lessons from community renewables **3. Marie Leer Jørgensen:** Functioning of compensation mechanisms regarding local acceptance of wind energy projects **4. Chiara Armeni:** Public Acceptance and Participation in Decision-making for Wind Energy Projects: A critical perspective	**1. Rosemary Rayfuse:** Climate Change and International Fisheries **2. Bjørn-Oliver Magsig:** The role and repercussions of the EU negotiating an international agreement on marine biological diversity of areas beyond national jurisdiction **3. Maciej Nyka & Sarah Kleinschumacher:** Deep Sea Stewardship and the Role of the International Seabed Authority in Sustainable Management of Natural Resources in the Area

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Thur. 31/8 13.30-15.15	Session IV.A *Ecological sustainability* Room: A1-01.01 Chair: Klaus Bosselmann **1. Volker Mauerhofer:** Law and Ecological Sustainability: perspectives *de lege ferenda* and *de lege lata* **2. Tiago de Melo Cartaxo:** Adapting law and governance to the age of sustainability and biodiversity **3. Marco Túlio Reis Magalhães:** The legal approach of ecological sustainability in the European Environmental Law and its contribution as a paradigm for the Common Market of South America (Mercosul)	Session IV.B *Forest biodiversity and management* Room: A1-01.15 Chair: Mary Dobbs **1. Maria Forsberg & Gabriel Michanek:** Landscape Planning for Forest Biodiversity and Diverse Forestry **2. Bartosz Kuraś:** Tree Cutting Permits - Legal Instruments for the Protection of Trees in Poland **3. Seita Rompanen:** The legal challenges of the proposed EU regulatory frameworks on LULUCF and sustainable forest biomass **4. Yelena Gordeeva & Nikolay Kichigin:** What is the Value of Climate Law and Policy for Sustainable Forest Management	Session IV.C *Agricultural pollution* Room: A1-01.14 Chair: Robin Kundis Craig **1. Tiina Paloniitty:** Scientific solutions to axiological controversies: the 4-faced agricultural runoff regulation in the EU **2. Jussi Kauppila & Helle T. Anker:** The role of permits in regulating livestock installations and manure spreading: experiences from DK and FIN **3. Lærke Assenbjerg:** Socio-ecological resilience of the agriculture regulation **4. Marek Szolc:** The Nitrates Directive in Poland - (in)effective implementation and its impact on sustainable water management	Session IV.D *Natural resources management* Room: A1-01.13 Chair: Anita Rønne **1. Sanne Akerboom:** Rethinking natural gas; an approach towards a sustainable and responsible use of natural gas **2. Saara Österberg:** Environmental regulation supporting the development of mine water management - case Terrafame Mine	Session IV.E *Conservation law – new approaches?* Room: A1.01.12 Chair: Jukka Similä **1. Lise Vandenhende & Geert Van Hoorick:** The management of cultural heritage and nature: complementary or conflicting regulations? **2. Karolina Karpus:** Landscape audit as a new instrument of landscape protection and management in Poland **3. Sarah Fagnen:** Private individuals' contribution to the Nature protection

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Thur. 31/8 15.45-17.30	Session V.A *Liability and criminal law perspectives* Room: A1.-01.01 Chair: Ludwig Krämer **1. Marjan Peeters:** Environmental liability as a back-up tool for managing natural resources: how to fill the gap? **2. Sandra Cassotta:** The transposition of the Environmental Liability Directive in Member States: the significance of threshold, the scope of application and issues related to the choice of liability such as exemptions and defenses. **3. Grazia Maria Vagliasindi:** Addressing threats to ecological sustainability: strengths and weaknesses of EU environmental criminal law **4. Magdalena Roibu:** Romanian ecocentrism and EU legislation on environmental protection - a criminal law perspective	Session V.B *Agricultural policy and the environment* Room: A1-01.15 Chair: Maria Pettersson **1. Ludivine Petetin:** The Greening of the European Common Agricultural Policy: Towards Sustainable Agriculture in England and Wales **2. Luchino Ferraris:** The achievement of environmental protection in the EU agricultural sector **3. Sian Affolter**: Ecologically sustainable management of natural resources and agriculture in Switzerland – Balancing constitutional requirements and free trade agreements	Session V.C *Water rights* Room:A1-01.14 Chair: Marleen van Rijswick **1. Rosalind Malcolm & Alison Clarke:** Water as a common treasury **2. Gabriela Cuadrado-Quesada & Thomas Hartmann:** Groundwater Governance and Property Rights – An Exploration of Legal Pluralism and its Consequences for Sustainability **3. Gunnhild S. Solli:** Does ownership to water matter. A peak into European models of ownership to groundwater and some of their implications **4. Silke Laskowski:** Enforcing the human right to water and sanitation with regard to the UN 2030 Agenda for Sustainable Development, Goal 6 ("Water") versus EU free-trade agreements CETA, TTIP and the like	Session V.D *Waste management II* Room: A1-01.13 Chair: Lorenzo Squintani **1. Katerina Mitkidis:** Responsible Management of Pharmaceutical Waste in the EU – Towards a Comprehensive Legal Framework **2. Violeta Stratan:** A State and Tendencies in Romanian Environment Law on Waste Management from a EU perspective **3. Bernard Vanheusden:** District heating as sustainable waste management: old idea parading as new one ….	Session V.E *Biodiversity, biota and patents* Room: A1-01.12 Chair: Tilak Ginige **1. Mary Dobbs:** Contextualising patenting of plant genetic resources: hidden threats to biodiversity **2. Agnieszka A. Machnicka:** Can the EU System Accommodate Sustainable Patent Law and Policy? Between Biotechnology and Biodiversity **3. Beatriz Martinez Romera & Ana Sofia P. S. Reboleira:** Subterranean Biodiversity – the Endangered Biota Neglected by EU Conservation Legislation

Fri. 1/9 9.00-10.45	Session VI.A *Economic instruments in environmental governance* Room: A1-01.01 Chair: Wolfgang Köck **1. Felix Ekardt:** Cost-Benefit Analysis: A Basis for Defining Targets of Biodiversity Governance? **2. Jukka Similä:** Creating markets for ecological compensation **3. Henrik Fischer:** Sustainable transformation of water infrastructures: factual and regulatory challenges with a particular focus on finance	Session VI.B *Public participation and information* Room: A1-01.15 Chair: Jan Darpö **1. Paulo Linhares Dias:** Environmental Tribunals - Effective Jurisdictional Protection in Environmental Law **2. Caer Smyth:** How is rational argument employed by environmental justice actors in participatory environmental governance structures? **3. Bonnie Holligan:** Security and Equity of Private Mechanism for Securing Environmental Obligations: Public participation and Access to Information in English and German Law **4. Maria Maniadaki:** Geographic Information Systems (GIS) as a tool to provide environmental information to the public and to monitor the efficiency of the relevant public services		Session VI.D *Environmental liability, contaminated soil and integration challenges* Room: A1-01.13 Chair: Barbara Pozzo **1. Florina Popa & Flaminia Stârc-Meclejan:** The Reciprocal Relationship of Environmental Responsibility and Liability: What are the Chances? **2. Ancui Liu:** The international liability and redress regime regarding environmental damage caused by cultivation of genetically modified crops—links with the Environmental Liability Directive 3. **María del Carmen Bolano & Iñaki Lasagabaster:** Legal Protection of Environmental Soil Quality in Europe: Specific Reference to Contaminated Soil **4. Jovan Racij:** Environmental challenges in the EU integration path - Serbia	

Session I.A

Squaring the circle: towards more coherence in EU policy and law regarding the sustainable management of natural resources

Abstract for the cross-cutting theme 'Ecological sustainability – fundamental questions and implications for environmental law and governance'

Wybe Th. Douma
T.M.C. Asser Institute, The Hague, The Netherlands

Abstract

Over time, the European Union has developed separate policy instruments with distinct features for numerous individual natural resources. These instruments cover a variety of resources, such as forestry products, fisheries, air, water, waste, conflict minerals and biofuels. Building on previous research by the author (notably on EU biofuels policy, waste and forestry) and the research of others, the legal history and existing evaluations of the instruments in question, and against the background of the EU policy commitments regarding ecological aspects of sustainable development and the EU's Thematic Strategy on the Sustainable Use of Natural Resources, this paper will make an inventory of selected corresponding and diverging aspects of these individual instruments. Aspects to be investigated include the use of due diligence systems, licensing, prohibitions, resource efficiency, adherence to principles of environmental law, sanctions and enforceability.

On the basis of this inventory and the sources mentioned above, it will be examined whether the differences in the approaches followed can be explained through the specific ecological characteristics of the natural resources in question, and/or whether other factors can be identified that play a role. Where differences in approaches are identified that lack a clear ecological or other justification, it will be investigated whether these differences could be overcome by introducing a more coherent approach in EU policy and law regarding the sustainable management of natural resources. Where such possibilities could be envisaged, the paper will explore which general and/or specific elements could contribute towards such an enhanced coherence of the EU's policy regarding sustainable management of natural resources.

Theses:

- The different approaches followed in EU instruments regarding sustainable management of natural resources do not allow for sufficient policy coherence.
- A stronger involvement of stakeholders and improvements in environmental compliance assurance systems are among the options to increase policy coherence where sustainable management of natural resources by the EU is concerned.

Biography

Dr. Wybe Douma is senior research fellow at the T.M.C. Asser Institute and lecturer of International Environmental Law at Hague University (both in The Hague, The Netherlands). He specialises in EU environmental law and international trade law. His working experience of over 20 years includes advising on European and international environmental law in the EU and its neighbouring countries, South America and Asia to students, civil servants, judges, public prosecutors and diplomats. Furthermore, he worked in a wide range of legal projects, notably dealing with environmental law. He was also seconded to the Legal Department of the Dutch Ministry of the Environment, where he dealt with a wide range of EU and international environmental law issues. He also regularly provides advice to ministries, the European institutions, NGOs and others, and publishes frequently on issues of environmental law.

*Moritz Reese, Helmholtz Centre for Environmental Research**

Proposal for a talk on the 5th EELF Conference in Copenhagen „Sustainable Management of Natural Resources – Legal Instruments and Approaches"

Subtheme No. 5) fundamental questions and implications

What makes environmental law sustainable? – Regulatory keys to environmental sustainability

30 years after its introduction as a principle of societal development (WCED, 1987), sustainability today is a commonly agreed ideal and omnipresent maxim of politics and society, especially as regards environmental policy. Environmental sustainability is even referred to as a legal principle in a number of Constitutions and environmental laws (e.g. Art. 11 AEUV; Art. 3 Abs. 3 und Abs. 5 EUV). Nevertheless, considerable ambiguity and disagreement remain about what sustainability actually means in practice. It is true, that the vagueness of this concept is highly apparent, and no globally agreed or even binding definition of it exists. Three decades of intensive debate have generated a wide diversity of sustainability concepts, and hence it remains pretty much unclear what sustainability demands – particularly also in regulatory terms.

In this presentation, it is argued, that despite the disparities, is possible, to identify a number of "core requirements" of sustainable environmental management which are key to virtually all the sustainability concepts under discussion and which also point us to fundamental regulatory features of a sustainable environmental law. This includes

1) Formal anchorage of the sustainability concept in the relevant laws: If the concept of sustainable development is to be taken into account in well-designed and robust decision-making procedures, there is a need for it to be legally anchored at the level of constitutional law or of lower-level law.

2) Orientation towards environmental quality objectives: In order to operationalize the fundamental concept of long-term socio-ecological balance in terms of environmental impacts, it is imperative to define clearly the level of ecological quality we wish to preserve as part of a sustainable balance with social and economic interests.

3) Integrated management and management regimes: Another fundamental requirement included in all the sustainability concepts debated is that of "integration", meaning that conflicting ecological, social and economic interests must be duly considered and brought into an optimal, durable balance. In institutional terms, this implies adequate organizational and procedural arrangements.

4) Continual generation of and adaption to new 'sustainability-knowledge': A durable balance between economic, environmental and social sustainability factors can only be achieved if the relevant decision-making systems are continuously informed by current knowledge and designed in a flexible way to allow for regular monitoring and revision.

5) Effective participation of the public and stakeholders in these processes: Maintaining an optimal balance between environmental, economic and social needs requires that such interests can be openly expressed and discussed by the relevant stakeholders. Meaningful participation is frequently highlighted, therefore, as a fundamental procedural element of sustainable development.

The presentation givers further arguments, explanation and examples to these focal elements of sustainable environmental governance and their regulatory implications.

**Dr. iur. Moritz Reese* is a senior researcher at the Department for environmental and planning law at Helmholtz Centre for Environmental Research – UFZ in Leipzig, Germany, were he is heading the Research Group for European and International Environmental Law and co-chairing the social science working groups on water governance and on climate change. Moritz has researched and published in many fields of environmental law. Further infos on http://www.ufz.de/index.php?en=35775

Annual EELF Conference 2017 - Copenhagen
Sustainable Management of Natural Resources
Legal Approaches & Instruments

Abstract by: L.S. Braaksma LLB & prof. dr. K.J. de Graaf

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Regulating Environmental Utilisation Space in the future Dutch Environment and Planning Act: Obstacles and Incentives

In the Netherlands, the government is working on a legislative project that will fundamentally change the structure of the Dutch environmental law: the Environment and Planning Act (hereafter EPA).[1] One of the main reasons to initiate this fundamental change is the lack of an integral and coherent approach to regulation concerned with the (physical) environment in order to achieve sustainable development.[2] The rules, norms and principles are spread across several different provisions focussing either on a particular subject or addressing one particular environmental issue. Because of this, the current legal framework in the Netherlands is insufficient to offer (local) governments the instruments needed to actively work towards a sustainable society, whilst allowing for economic development.[3] The EPA – which is anticipated to come in to force on January 1, 2019 – will replace fifteen existing legislative acts concerned with environmental law (including the General Act on Environmental Permitting, the Water Act and the Spatial Planning Act) and incorporate the area-based components of eight other acts (such as the Environmental Management Act).

It is the explicit wish of the legislator to use the EPA to implement the so-called 'environmental utilisation space' (EUS) concept. This concept is also simply referred to as 'environmental space' and is closely related to the idea of an ecosystem approach. It is defined in the Explanatory Memorandum of the EPA as: '*the legal area which exists within an area to enable the realisation of a qualitative good physical environment, as well as to realise (economic) activities in that same environment*'.[4] Together with the introduction of the generic instruments for applying a 'programmatic approach' – which allows for (economic) development when environmental quality standards or other environmental values are impeding on the realisation of new activities –, the use of the EUS concept for environmental protection and sustainable management in the EPA is one of the key innovative aspects of the

[1] In Dutch: *Omgevingswet*. See for an English translation of the Act: here.
[2] See *Parliamentary Papers II* 2013/14 33 962, No. 3, p. 7-8; the objective to strive towards sustainable development is explicitly mentioned in Article 1.3 EPA.
[3] Ibid, p. 6-10.
[4] Ibid, see the attached appendix. The physical environment includes components such as construction, infrastructure, water systems, water, soil, air, landscapes, nature and cultural heritage. It refers to the space that can be used without exceeding the governing environmental standards.

new act. Moreover, the EPA and the EUS concept are meant to allow for better and easier implementation of EU environmental law.

In our paper, we will focus on the obstacles and the incentives of regulating the environmental utilisation space with the legal instruments in the EPA, specifically the legal instruments for applying a programmatic approach. We will start with an interdisciplinary section on the origins and applications of the EUS concept and its relation to the idea of an ecosystem approach. After that, we will analyse the extent to which the environmental utilisation space concept is implemented in the future Dutch EPA and in what ways this concept can help to strive towards sustainable development through a programmatic approach. Will the implementation of the concept of environmental utilisation space in the new Dutch Environment and Protection Act serve as an example for the rest of the EU member states? What are some of the obstacles and/or incentives of regulating the environmental utilisation space with the legal instruments of the EPA?

Biography

K.J. (Kars Jan) de Graaf is associate professor with a chair in Public Law and Sustainability at the Department of Constitutional law, Administrative Law and Public Administration, University of Groningen (The Netherlands), and managing editor of the Review of European Administrative Law journal (REALaw). www.rug.nl/staff/k.j.de.graaf

L.S. (Lolke Sytze) Braaksma participates in the Top Master Programme in Research Law at the University of Groningen and is research assistant at the Research Programme Law on Energy and Sustainability, University of Groningen (The Netherlands).

Renske Giljam
Abstract for EELF Conference, Copenhagen 2017.

'Implementing ecological governance through the extended use of 'Best Available Techniques'

In order to combat climate change and to reduce environmental degradation it is essential to take a more holistic approach to product regulation and in particular to energy production. A European approach is needed in this, due to the liberalisation of the energy market and the creation of an internal market in energy. I argue that the required new approach should take the form of an ecological governance approach, a blue print for which has been developed by Olivia Woolley. The presentation will examine to what extent such ecological governance can be implemented by extending the concept of Best Available Techniques (BAT), that is currently used in the European regulation of industrial emissions.

In brief, I will first discuss what ecological governance entails and what its implementation would require. Essentially, an ecological governance approach concerns a legal approach aimed at continuously reducing stresses on ecosystems on order to preserve their resilience. This approach should therefore be guided by the following three principles: the reduction of consumption, the substitution of polluting practices by less disruptive alternatives, and 'sunsetting', i.e. phasing out the most damaging techniques.

I will then argue that all three principles can largely be implemented by extending the mandatory use of BAT. This concept is now only employed in EU industrial emissions regulation, as a result of which the current legal instruments do not consider the full production chain or even require the use of BAT throughout production chains. I argue that the use of BAT enables ecological governance to an extent, but that simultaneously the BAT-concept needs to be modified internally to fully serve this purpose. Largely this would involve a re-alignment of the balancing of interests in favour of the environment. On top, the use of BAT needs to be extended to areas outside its original scope, such as agriculture and forestry, to maintain its holistic perspective of ecological governance.

The presentation has linkage to all subthemes of the conference, but most with the cross-cutting theme of (achieving) ecological sustainability. In the presentation emphasis will be on assessing and discussing the appropriateness and effectiveness of current legal instruments and how to resolve any discrepancies therein. This is done primarily by coupling already existing legal concepts and combining them to strengthen the legal framework and to enhance environmental protection in particular.

(383 words)

Biography

Renske Giljam studied at the University of Groningen, where she first got her Bachelor's degree in International and European Law, and then concluded the Research Master *cum laude*. Throughout her studies she focussed largely on environmental law. Currently, she is a PhD researcher at the Groningen Centre of Energy Law (University of Groningen). Her research revolves around the question how to implement a full life cycle approach in EU energy law. The following publications are part of her PhD research: RA Giljam, 'Towards a Holistic Approach in EU Biomass Regulation' (2016) 28(1) Journal of Environmental Law 95, and RA Giljam 'Better BAT to bolster ecosystem resilience. Operationalising ecological governance through the concept of Best Available Techniques' (2017) 26(1) Review of European, Comparative & International Environmental Law (RECIEL) *forthcoming April 2017.*

(130 words)

Hana Mullerova – abstract for the EELF Conference in Copenhagen

Related subtheme:

5) Ecological sustainability – fundamental questions and implications for environmental law and governance

Title:

Sustainability as a myth; or how to enliven the concept?

Abstract:

The concept of sustainability was highly successful after its birth in 1980s, aligning economic and environmental considerations and enabling to unite all stakeholders around the same table. At the beginning, the vagueness and thus pliability of the concept appeared to be more an advantage, which helped to spread the idea in numerous policy and soft law documents and to endow it with a wide recognition in the international community.

Today, sustainability still remains the most widely accepted conceptual instrument for shaping the international environmental debate. However, at the same time, the thousands-of-times-repeated concept lacks real impacts and the vagueness of the concept, whose content has never been satisfactorily clarified, seems to hinder any kind of its practical implementation. It seems the world hasn't become more sustainable at all in the era of sustainability. Is sustainability a mere rhetoric, a lifeless and empty concept today?

Sustainability has always had many critics. In my paper, I will firstly point to the main lines of critical argumentation asserting that sustainability is a fantasy either from the very outset or became so through the time: I will deal with the word 'sustainability' as such and its (in)accurateness; with ecological and ethical (un)justifiability of sustainability, with the objection of its anthropocentricity; with the problem of how to equilibrate the three pillars of sustainability; and with the accusation that sustainability paradoxically contributed to just opposite results than intended – to even more unsustainable consumption and to entrenchment of existing inequalities.

In the second part, I will present a few proposed solutions to the problem of the missing implementation of the concept of sustainability: I will introduce particularly solutions consisting in redefining the strategic priorities within the concept; in strengthening the role of integration while interpreting and applying the concept; in 'constitutionalizing' the concept in international, European and national and law; and in turning the focus to the so called neo-sustainability.

Short biography:

Hana Müllerová (JUDr, PhD) is an Environmental Law Researcher in the Institute of State and Law of the Czech Academy of Sciences, Prague, where she also leads the Public Law Department. Prior to that, she worked for the Department of Legislation at the Ministry of the Environment of the Czech Republic. She received her PhD from the Faculty of Law,

Charles University, in Prague. She has published in Czech and English on issues of the human right to environment, the role of the ECtHR in environmental protection, the procedural environmental rights under the Aarhus Convention and animal law. Currently she is the vice-chairwoman of the Czech Environmental Law Society and the member of the Committee on the Environment of the Czech Academy of Sciences.

Session I.B

The Fitness Check of the EU Nature Directives: the Directives are fit for purpose, now implement them!

An Cliquet

As with many other legal instruments in the EU, the EU Commission ordered a regulatory and fitness performance evaluation of the EU Nature Directives, as part of the EU Smart Regulation policy. The Nature Directives include the Birds Directive (EU Directive 2009/147/EC) and the Habitats Directive (EU Directive 92/43/EEC). Both Directives have given rise to numerous court cases for the European Court of Justice and national courts of EU member states, mainly because of a lack of implementation of the Directives. Some actors, including politicians, some businesses, and scholars criticized the Directives for being too rigid, halting possibilities for economic development, or even being an obstacle towards sustainable development. Many of those who criticized the Directives were advocating a change of the Directives. A change of legislation is one of the possible outcomes of a Fitness Check. Many conservationists and NGOs were worried that the Fitness Check and possible amendment of the Directives would mainly lead to a weakening of the Directives and even further undermining of EU's nature conservation policy, and thus further aggravating the already deplorable state of nature in the EU.

The Fitness Check process also included a public consultation process. The results were published in a report of 2015. Actions were set up by environmental NGOs for the support of the Directives. The biggest public support for EU legislation ever was the result, with over 550.000 signatures in support of the Directives. Other support came from the European Parliament, businesses, as well as environmental ministers from several EU countries.

The study on the Fitness Check was delivered by a consortium led by Milieu LTD in March 2016. The study concluded that the Directives are fit for purpose and that the problems with the pace and extent of progress towards the objectives of the Directives are not due to the legislation itself but come from its implementation. The European Commission similarly concluded in its final evaluation (December 2016) that the Directives are fit for purpose, but fully achieving their objectives and realising their full potential will depend on substantial improvement in their implementation in relation to both effectiveness and efficiency, working in partnership with different stakeholder communities in the Member States and across the EU, to deliver practical results on the ground. A report from the European Court of Auditors from 2017 pointed to shortcomings in the implementation, including the insufficient coordination between authorities and stakeholders, lack of funding and inadequate monitoring, and provided some recommendations for better implementation.

Next to these recommendations, this paper will look into the legal implications of a better implementation, in particular with regards to articles 6 and 10 of the Habitats Directive. We advocate for a higher ambition level for conservation and restoration measures; a stricter application of the deterioration prohibition and a substantial increase in measures for connectivity.

Theme of the conference:

Biodiversity and nature management

Keywords: Fitness Check, Nature Directives, implementation

Short cv:

An Cliquet is a lecturer at the Department of Public, European and International Law of Ghent University and is teaching courses on public international law in general and courses on international and European biodiversity law. The research of An Cliquet is situated in the field of international, European and national biodiversity law, encompassing both marine and terrestrial biodiversity law. Her current research activities focus on ecological restoration in international law, European nature conservation law, climate change and nature conservation and legal aspects of ecosystem services. She supervised or is supervising PhD research on ecological restoration; ecological refugees; gender and biodiversity; a rights-based approach to conservation; the protection of the Congo basin; health and biodiversity; wildlife trade in Africa; the legal protection of urban biodiversity; the protection of transboundary watercourses under biodiversity law; the protection of children during armed conflicts.

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The Precautionary Principle in Habitats Protection: Obscuring Scientific Conflict and the Proper Judicial Role

E Lees, University of Cambridge

This paper is submitted to the Biodiversity and Nature Management section of the conference.

This paper considers the role of the precautionary principle in recent case law of the Court of Justice of the European Union, including C-290/15 *D'Oultremont v Walloon Region*; C-387/15 and C-388/15 *Orleans v Vlaams Gewest* and C-399/14 *Grune Lige Sachsen v Freistaat Sachsen* and how this interacts with the more established decisions in the *Wadenzee* line of case law. Specifically, it considers how the principle is used by the court as a tool by which scientific conflict and uncertainty is managed and framed; how this affects the relative power of the various decision-makers in relation to habitats protection; and what this means for habitats protection as a whole.

It will argue that the provisions in the Habitats Directive relating to protection of sites establish a triumvirate of decision-makers: administrative authority, scientific advisor, and judiciary. However, reference to the goal of environmental protection, and the precautionary principle in particular, hides the process by which decision-making power is allocated amongst these actors, and to truly understand the resulting system, we must acknowledge the differing norms which motivate each of these actors. In particular, this paper argues that we must consider the judiciary as an actor within the decision-making process and that this recent case law has some very important lessons for this overall thesis.

This paper builds upon research into the triumvirate of decision-makers in habitats protection - public authority, judiciary, and scientific advisor - to extend its consideration to the include the role of developer and Advocate General as additional elements in the decision-making process. The goal of the paper is to establish the values which are buried within the precautionary principle in this context, and to demonstrate that the different decision-makers bring different values to bear upon their approach to scientific conflict in habitats protection. It therefore achieves two things: first, it uses the habitats context to explain important features of the precautionary principle and its effect on real-world decision-making; second, it acknowledges and helps to explain the fluid role of the judiciary in habitats protection specifically, and in environmental regulation more generally.

Finally, the paper concludes by making some comments as to what the appropriate judicial role might be in habitats protection, and how we can shape the existing legal frameworks to ensure that this is carried out in practice. In doing so, it suggests that the current interpretation of the precautionary principle by the CJEU, in giving the court a justification for an extremely broad interpretive approach to key definitional terms within legislation, undermines the proper judicial role, and calls into question the quality of the legal frameworks thus produced.

Abstract for Annual EELF Conference 2017

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Subtheme 2) Biodiversity and Nature Management

Abstract: Nature Values and Imperative Reasons of Overriding Public Interest

Natura 2000 network of protected areas, covering over 18% of the EU's land area, is the backbone of European biodiversity protection. At the same time when ecologists consider protection to be insufficient, Natura 2000 hamper or may hamper many development projects, which are important for the economy. Due to the impacts based regulation in the Habitats Directive (92/43/EEC) this applies also to project which are located in the vicinity of the Natura 2000 areas. However, public authorities may give a derogation from the protection to a project or plan causing negative impacts if two conditions set out in the Habitats Directive are met. First, there should not be alternative solution available and secondly, the authority may consider whether there are imperative reasons of overriding public interest which justify the project. In this situation, compensatory measures are also required. Overriding public interest are to be interpreted strictly in the context of Habitat Directive. This means that projects lying entirely in the interest of companies or individuals could not be permitted. At first sight it seems that overriding public interest are strict and rarely achievable but on the other hand, large industrial projects create jobs and have a positive effect on the economic development of the area. Creating jobs are in many cases considered to be a public interest.

The European Court of Justice has interpret the provisions of Article 6(4) of the Habitats Directive in the meaning of overriding public interests in two cases. Also Commission has published Opinions in this matter. In this paper I aim to analyse what kinds of interests constitute overriding public interest in the sense of the Habitats Directive. In Finland, no such derogation has been granted yet, although one derogation procedure has been initiated. Regional Council of Lapland has suggested compensatory measures in its regional land use plan. In the land use plan two projects (artificial lake and tourist centre extension) are affecting directly on Natura 2000 sites. Other similary projects are likely to come. The mining project of Anglo American in the Viiankiaapa protected area (FI 130 1706) is highly likely to initiate another derogations process during coming years. These cases are used as illustrative examples of possible situations where derogation rules are applied.

Biography

I currently work in the University of Lapland as a younger researcher in the Adaptive Governance project. I participate in writing scientific articles and go through literature relevant to the subject. One aim of the project is to provide new insights how law and conflict resolution practices could in better way support adaptive change towards sustainable economy. Last autumn I worked in the Finnish Environmental Institute where I explored the judicial terms and other conditions of relevant legislation which may influence to the operation of the pilot project called the Habitat Bank of Finland. The Habitat Bank of Finland -project aims to develop a new market-based mechanism for biodiversity conservation, to complement the existing policy instrument mix. Exploration included mainly Nature Conservation Act and Habitats Directive. The focus of the work was on nature compensation measures. I am applying doctoral studies.

ANNUAL EELF CONFERENCE 2017
SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – LEGAL APPROACHES & INSTRUMENTS

Topic of the proposed paper:	**Balancing Biodiversity Protection and Other Public Interests: Czech Approach**
Subtheme:	**Biodiversity and Nature Management**
Author:	**Mgr. Vojtech Vomacka, Ph.D., LL.M.**
Home institution:	**Masaryk University, Brno, Czechia**

Short description:

This contribution aims to provide a critical analysis of the Czech case law and administrative practice in order to determine other public interest which prevail over default legal restrictions in biodiversity protection.

Even before joining the European Union, preservation and maintenance of nature was in the forefront of the environmental law in Czechoslovakia and later in Czechia. This long-established tradition was strenghtened by implementation of the Habitats Directive. In practice, however, many exceptions are granted for the sake of imperative reasons of overriding public interest. Privatization of industry, forestry, agriculture and pressure on infrastructure development brought increasing social conflict especially over wildlife issues. Public interest is no longer perceived in clear borders and it is often misused in political disputes for individual benefit.

Numerous cases have reached Czech administrative courts including the Supreme Administrative Court, covering a wide scope of matters from road and railway building, industrial accident and natural disaster prevention, mining or felling to hunting and sport events. Each case is rather specific but it is possible to identify common patterns in decision making and draw general conclusions as regards best practice and frequent deficits of administrative decisions. Nevertheless, a proper guidance for the administrative bodies and national judiciary is still missing. Furthermore, the Court of Justice of the European Union has not shed much light on the definition of public interest which supports the need for discussion on balancing different interest in protection of nature and sharing experience and examples of good practice among the Member States.

Main theses:

- Public interest is mostly determined based on economic and social factors and strategic needs of the particular region are often emphasized.
- Principles of subsidiarity and proportionality are not sufficiently applied in balancing biodiversity protection and other public interests.
- Some activities are more likely to obtain status of public interest and the person of the applicant plays significant role in the final decision.

Short biography:

Vojtech Vomacka works as a legal advisor at the Supreme Administrative Court of the Czech Republic (2010), assistant professor at the Faculty of Law of Masaryk University (2014) and member of the European Commission Expert Group on Access to Justice (2012, European Commission). He is also an external lecturer for the Czech Judicial Academy (2015), Association of European Administrative Judges (AEAJ, 2016) and Academy of European Law (2016). He completed postgraduate studies in Administrative and Environmental Law in 2014 (Masaryk University, Enforcement of EU Environmental Law) and LL.M. in International and European Business Law in 2016 (ELTE Budapest, Measures Based on Uncertainty: Precautionary principle in the EU and WTO Case Law). In his research work, he is particularly interested in biodiversity protection, environmental rights, environmental impact assessment, animal welfare and GMO.

Session I.C

Abstract of presentation at EELF Conference 30 August – 1st September 2017 in Copenhagen.

Christian Prip, Fridtjof Nansen Institute, Oslo

Regulation of marine aquaculture in Norway and Denmark – can growth in the industry and protection of the marine environment be combined?

The over-exploitation and depletion of wild fish stocks has paved the way for aquaculture – the breeding of fish and other aquatic organisms – to become the world's fastest growing food producing sector. Fish from aqualture now accounts for about half of the fish consumed for food, and this amount is expected to grow further especially with regard to marine aquaculture (mariculture).

While mariculture has a clearly positive environmental impact by easing the pressure on wild fish stocks, the industry also has negative environmental impacts in a number of ways. Mariculture has led to fish diseases, crossbreeding between escaped farmed fish and wild fish and pollution of the aquatic ecosystems from nutrients, chemicals, hormones and other pollutants. The rapid development of the industry has implied that environmental standards have not always followed suit with the environmental degradation.

The trade-off between the development of the industry as a means to improve food supply and economic growth on one side and to prevent and mitigate its environmental impact on the other, has been a much discussed topic in the two Scandinavian countries Norway and Denmark. While the industry is considerably bigger in Norway than in Denmark and the environmental impacts are of different kinds, there are also similar features: Both countries have long coastlines, quickly developed aquaculture industries and political commitments on their significant expansions. In both countries the regulatory frameworks have been heavily disputed with polarized views ranging from viewing them as too burdensome for the industry with too strict environmental requirements to prioritizing industry concerns at the expense of environmental impacts.

The presentation will compare the policy and regulatory frameworks on mariculture in the two countries. In this context, the balance of environmental concerns against economic and social concerns – the three pillars of sustainable development – will be assessed. The analysis will include recently submitted proposals by the two governments for policy and legal reforms to allow a significant expansion of mariculture activities.

The presentation will also assess the regulatory frameworks against principles of environmental law laid down in national law of the two countries as well as EU law. While Denmark as an EU member is subject to the whole range of EU environmental legislation relevant for mariculture, Norway as an EFTA member and part of the European Economic Area (EEA) has agreed to implement three pieces of EU legislation of great importance in this context: The Water Framework Directive and the Strategic Environmental Assessment (SEA) and Environmental Impact Assessment Directives.

Christian Prip – short bio.

I am a Senior Policy Analyst at the Fridtjof Nansen Institute in Oslo, Norway (www.fni.no), an independent foundation engaged in research on international environmental, energy and resource management politics and law. My main research area is environmental policy and law in the field of biodiversity, natural resources and the marine environment.

By the end of 2012 I ended a long career in the Danish Ministry of Environment as Chief International Adviser with special responsibility for international cooperation on biodiversity and natural resources. In this capacity, I was lead negotiator for Denmark and (during Danish EU Presidencies) EU in international environmental negotiations. I held the position as chairman of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the UN Convention on Biological Diversity from 2005 to 2007.

From 2006 to 2008 I was associate professor at the University of Copenhagen lecturing in international en

Preventing major accidents in offshore oil and gas operations: how effective is EU Offshore Safety Directive?

Yuan Yang

Tilburg University, Netherlands

Since the 2010 Deepwater Horizon oil spill accident occurred, the Europe Union (EU) has initiated a series of self-investigations and studies in order to check the safety of offshore areas in European countries. After recognizing the fragment and divergence of its existing regulatory framework on offshore safety, the EU brought the Directive on the Safety of Offshore Oil and Gas Operations (OSD) into effect. The OSD provides comprehensive rules for offshore oil and gas operations in European countries, with the objective of "establishing minimum requirements for preventing major accidents in offshore oil and gas operations and limiting the consequences of such accidents". The safety regime under the OSD imposes more duties on operators (owners), Member States and European Commission, which is considered to be a high standard framework. However, the effectiveness of the OSD still needs to be examined through its practical implementation in Member States. Since Member States are in the stage of transposing the OSD into national legislation, currently to assess how effective the OSD is should firstly review the legal foundation and substantive provisions per se within the instrument.

Environmental principles applied in the OSD, to some degree, play a fundamental role in constructing safety level in offshore oil and gas operations, which determine the regulatory boundary of preventive measures. As a secondary law, the OSD applies to the environmental principles set out by the Treaty on the Functioning of the EU (TFEU), which contain the principles of precautionary, prevention, source and polluter-pays. While the OSD also establishes general principles of risk management in offshore oil and gas operations, requiring operators to "take all suitable measures to prevent major accidents" and "limits [their] consequences for human health and for the environment." Based on the broad principles of risk management in offshore oil and gas operations, minimum safety standards are set out to prevent major offshore accidents, which particularly emphasize the obligations for operators. Specifically, operators shall prepare a series of safety documents when carry out offshore oil and gas operations. The implementation of the documentary requirements also become a significant aspect to examine the effectiveness of the OSD.

That is to say, true impact of the OSD will only be felt after the transitional period are over and at this point the conflicts between regulation and practical management chain limitations could become apparent. Accordingly, I would like to give this presentation to assess the current effectiveness of the OSD in terms of the following questions:

(1). How has the OSD unified and reinforced the legal framework on the safety of offshore oil and gas operations in European water?

(2). How have environmental principles (precaution, prevention, source and polluter-pays) been applied in the OSD?

(3). What exactly are the minimum safety standards for operators (owners), as well as their implementation problems in Member States?

Yuan Yang is a PhD researcher of International Environmental Law at Tilburg University. She used to join various academic programs and conduct internship in several law firms and courts in China. Her PhD project focuses on the liability and compensation for oil spill accidents arising from offshore oil and gas operations. By using comparative method to examine China, European and international law, she attempt to answer how China can effectively prevent and compensate offshore oil spill damages. Her current research concerns the appropriateness and effectiveness of EU Offshore Safety Directive, as well as its implementation in Member States. Relevant EU policy and law such as Integrated EU Maritime Policy, Marine Strategy Framework Directive and Environmental Liability Directive are also involved.

Obtained PhD position at Tilburg Sustainability Center on a PhD scholarship from the China Scholarship Council; LLM in environmental law from Shandong University, and LLB from Shandong University of Political Science and Law, China.

Title:

A Study of the Marine Laws Surrounding Sustainable Development Goals with Regards to Sustainable Development and Conservation Using Artificial Reefs

Abstract:

Biodiversity is an important factor in healthy and sustainable marine ecosystems and artificial reefs can play an important role in promoting the diversity and sustainability of marine ecosystems. While artificial reefs are not a new concept (some forms of artificial reef have been used in the Mediterranean Sea since 12,000 B.C.), they are common worldwide with the "modern" artificial reef concept originating in Japan. This research will attempt to determine if it is possible for an artificial reef to be used for conservation as well as sustainable development and if they are similar goals. By looking at the Sustainable Development Goals and identifying which goals could be relevant to the sustainable development of the marine environment and identifying which goals are relevant to the conservation of the marine environment, it will be possible to identify national and international laws that support or hinder these goals. From this, it would be possible to map out the different types of reefs and rank their effectiveness on scale of sustainability and their role in sustainable development goals; the same holds true with conservation. This research will also identify and determine whether current legal frameworks at international and national (UK) level are sufficient to support sustainable development and/or conservation.

Keywords/themes: artificial reefs (ARs), sustainable development goals, environmental law, marine law

Short Bio:

Hannah Morriss is a research Master's student at Bournemouth University (BU) with a Bachelor's degree in Environmental Science. Currently she is a member of the United Kingdom Environmental Law Association (UKELA) and the European Environmental Law Forum (EELF). She has attended conferences including the BU Postgraduate Research Conference, the 25th Coastal Futures Conference and the 3rd EELF Conference. Her passions and participation in scuba diving, sailing and windsurfing has led to her keen interest in the marine environment. It was the Advanced Environmental Law class during her undergraduate that led her to study Marine Law at the postgraduate level; her dissertation on ARs led her to study the way conservation and sustainability could be linked together. By attending the 3rd

EELF conference, new areas to explore were opened-up and have helped to develop her research master's topics, which is what she would like to present to the 5th EELF conference.

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Session I.D

Bio: Katerina Mitkidis is an assistant professor at the Department of Law, Aarhus University, Denmark from where she gained a PhD degree (2014). Her dissertation titled 'Sustainability Clauses in International Business Contracts' focused on the interplay between sustainability goals and international contract law (published with Eleven International Publishing, 2015). She holds a Master in Law degree from Charles University (2009). Katerina's research focuses on the practice of using private law tools to advance public interests, especially in the CSR and environmental regulation area. She is also interested in the ways law and legal tools are designed and used to steer behaviour in environmentally sound and responsible directions. She was a visiting scholar at Duke University (2016) and Vanderbilt University (2012). Before joining academia, Katerina worked as legal trainee for Baker&McKenzie Prague office and as a junior lawyer in Hajek&Zrzavecky, Czech Republic.

ANNUAL EELF CONFERENCE 2017 - COPENHAGEN

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES
– LEGAL APPROACHES & INSTRUMENTS

30. AUGUST – 1. SEPTEMBER 2017
COPENHAGEN, DENMARK

Abstract by Marta Cenini

Subthemes:
4) Raw materials and waste management

Title of the paper: Landowner's liability and waste management: perspectives from private law

The Waste Framework Directive (2008/98) provides rules that impose liabilities upon different subjects. Recently scholars (see in particular the recent paper by V. Fogleman) have pointed out that these rules must be coordinated with those coming from the Liability Directive (Directive 2004/35). This is especially true with regard to the liability of the "innocent" landowner, that is to say, the owner of a contaminated land who is not responsible for the soil pollution nor for the improper waste disposal but nevertheless is considered financially responsible for certain costs.
This coordination is not as simple as it seems at first sight and requires a careful analysis, taking in particular into account the specific implementation of these rules in the national legal systems. Indeed, case law also shows that there is a general misunderstanding of the principles and applicable rules to the two different hypothesis of liability. The recent judgement of the European Court of Justice (cd. FIPA Group case) has not addressed specifically this issue, leaving the solution of this problem aside.

From the point of view of private law, it is also necessary to define expression such as "disposal", "waste", "waste holder", "waste producer", "waste dealer" in order to lead them back to the legal categories recognized by western legal tradition such as ownership, possession, bare possession, and nullity of contract against mandatory rules. Indeed, most of the time the European legislator (and consequently the national legislators) use words and definitions that do not have a precise legal correspondent into the national laws. Ascertaining these correspondences is essential in order to have a full understanding of the liabilities that may arise from these disciplines.

Marta Cenini short biography:

Marta Cenini is aggregate professor of private law at the University of Milan, Italy. She holds a PhD in private and comparative law awarded by the University of Turin in 2008. She has been visiting scholar in US (University of Minnesota Twin Cities) and in London (Birkbeck University and Goldsmith College, University of London).
She has published in English and Italian in the fields of contract, tort and property law from a comparative and economic perspective. During the last years, her research interests have included the topic of environmental private law and she is author of a book, released in March 2017, about the landowners' liability for remediating contaminated land in the EU and US. She is author of other two monographs.
She is regularly invited to speak at national and international conferences and in 2016 she participated as a speaker at the 2016 Annual EELF Conference.

ABSTRACT: DECONSTRUCTING THE PRECAUTIONARY MEASURES OF WASTE LEGISLATION AND ENVIRONMENTAL PROTECTION – CASE OF END-OF-WASTE REGULATION

Topi Turunen

Researcher of Environmental Law, UEF Law School, Joensuu, Finland

Subtheme: Raw materials and waste management

Short description of the content

The European waste legislation is a mixture of environmental and economic objectives. Finding a common ground between the two can often be difficult. Article 1 of the Waste Framework Directive (98/2008/EC, 'WFD') regulates that (it) lays down measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use. In addition, WFD is regulated on the legal basis of environmental protection. However, especially considering the objectives of the recent *Circular Economy Package*, it is clear that the provisions of WFD should also aim for more efficient waste recovery and promoting the use of waste materials in production processes.

Article 6 WFD regulates on the end-of-waste criteria according to which substances and objects that have been classified as waste can cease to be waste. A material can cease to be waste after undergoing recovery when: a) it is commonly used for specific purposes, b) a market or demand exists for it, c) it fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and d) its use will not lead to overall adverse environmental or human health impacts. The end-of-waste regulation aims to deconstruct the unwarranted precautionary regulation applicable to materials rather due to their waste status than their environmental impacts in order to promote material efficiency and circular economy.

It would seem that the first two criteria are there merely to ensure that ceasing to be waste is not used as a means to circumvent the regulation on storing or discarding waste. The third criterion ensures that it is legally possible to use the waste material after it ceases to be waste. The main point of the regulation would seem to be in the fourth criterion: On the one hand the end-of-waste provides a possibility to enable more efficient waste recovery by deconstructing bottle-necks connected to the using "waste" in production processes. On the other hand the criteria for end-of-

waste provide that this deconstruction of the provisions on “waste” can only be done where there are no negative environmental impacts.

Main theses

1. It is evident that the regulation promoting the use of waste-based materials will, and should, be overruled when it contradicts the objective of high level of protection of the environment and the human health.
2. However, when the provisions that are making the utilisation of waste materials more difficult are not made on the grounds of environmental or human health protection, they should be removed to promote material efficient use of waste materials.
3. Finding a balance between these conflicting objectives will determine the future of waste management in circular economy.

BIOGRAPHY

I am Topi Turunen, an environmental law researcher and a PhD candidate at the University of Eastern Finland Law School. I am currently also working as a project researcher in the Finnish Environment Institute. I started writing my doctoral dissertation on the concept of waste as an instrument of achieving the circular economy in February 2014. Since then I have written multiple papers on the interpretation and application of the end-of-waste criteria of Article 6 of the Waste Framework Directive and Waste-to-Energy legislation in Finnish and in English.

My research interests focus on the interpretations and the development of waste legislation as an instrument to harness waste materials back to production processes. In addition to legislation on waste, I am also interested on other regulation and policies that promote the objective of closing the loop and creating sustainable management schemes for waste and natural resources.

ANNUAL EELF CONFERENCE 2017 - COPENHAGEN / 30.8-1.9.2017

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES - LEGAL APPROACHES & INSTRUMENTS

ABSTRACT / SUBTHEME 4) RAW MATERIALS AND WASTE MANAGEMENT

ALINA LEHTONEN, PHD STUDENT
FACULTY OF LAW, UNIVERSITY OF LAPLAND
ROVANIEMI, FINLAND

TOWARDS RESOURCE EFFICIENCY - UTILIZATION OF INDUSTRIAL WASTE MATERIALS AS PART OF A CIRCULAR ECONOMY

Natural resource supplies are not unlimited. Economic growth and the use of natural resources can no longer increase in tandem. The two must be uncoupled and human well-being created without harming the environment. Economies should become green economies, ones where resources are used effectively. In a resource-effective economy nothing is wasted and the use of virgin materials is reduced to near zero. The current, linear "take – make – use – discard" use of materials has led to vast use of natural resources, resulting in immense amounts of waste and posing serious environmental problems.

The European Union has reacted to the loss of natural resources and consequent accumulation of waste. In 2010, the Commission launched (COM(2010)2020 final) seven flagship initiatives to turn the EU into a smart, sustainable and inclusive economy. One of the initiatives, "A Resource Efficient Europe" (COM(2011) 21 final), seeks to turn the EU into a resource-efficient and low-carbon economy. Related to the initiative, in 2011 the Commission released its "Roadmap to a Resource Efficient Europe" (COM(2011) 571 final).

In 2015, the Commission adopted a Circular Economy Package (COM(2015) 614 final), which included revised legislative proposals on waste. The aim of the Package is to accelerate Europe's turn towards a circular economy, an ambition to be pursued by changes in legislation on waste. In its report on the implementation of the related Action Plan (COM(2017) 33 final), launched in January 2017, the Commission points out the importance of continuing the work started as part

of the Package if the circular economy and material efficiency are to be a reality throughout the Union.

My paper examines research on the current waste legislation in the European Union and Finland and how this can be improved to promote resource efficiency. I focus on regulation relating to material efficiency - a crucial aspect of resource efficiency - and explore the legislative opportunities to promote material efficiency and the challenges such efforts face. A key sector in achieving efficient use of materials is recovery of wastes: efficient recovery helps to decrease the use of natural resources at the same time as it reduces the amount of waste that is landfilled. Landfills cause harmful environmental effects, such as soil and water pollution. My particular focus is regulation on waste recovery, in particular the recovery of waste in earth construction.

BIOGRAPHY

ALINA LEHTONEN, PhD CANDIDATE
FACULTY OF LAW, UNIVERSITY OF LAPLAND
ROVANIEMI, FINLAND

I am a PhD candidate in the Faculty of Law at the University of Lapland, where I began my research career immediately after completing my master of laws degree in 2014. My dissertation focuses on environmental protection legislation, with particular reference to legislation on waste. Within this area, my specific interests are resource and material efficiency. The dissertation will consist of several published articles, the first of which, "Recovery of Wastes in Land Construction", has appeared in the *Finnish Environmental Law Review* (number 4/2016, published by the Finnish Society for Environmental Law). At present, I am doing empirical research on environmental permits for the use of certain wastes in earth construction. In addition to my dissertation research, I have worked in projects studying the legislation on the recovery of ash and slag and have carried out a comparative study on regulation of the bioeconomy.

Session I.E

Biography of the presenter

Volker Mauerhofer holds Master degrees in Laws (1989-93), Natural Sciences (1992-99) and Ecological Economics (2002-03) and a Doctorate (1993-98) in Law. He is former Attorney-at-Law and former Senior Research Fellow as well as Visiting Professor at United Nations University/Japan after having taught and researched there for over two years. Currently he is a Lecturer at the University of Vienna, holding several visiting researcher positions in Japan, and a Coordinating Lead Author of the UN-IPBES Global Assessment/Chapter 6. He is member of different legal professional bodies including IUCN's World Commission on Environmental Law (WCEL) and board member as well as auditor of the International Sustainable Development Research Society (ISDRS). Editing currently several Special Issues, he is co-/author of already more than 100 peer-reviewed publications and held more than 120 presentations worldwide. Besides supervising students, he has executed academic and freelance research over 20 years in more than 50 countries.

Submission to the EELF Conference 2017, Copenhagen, Denmark

So many plans, so many programmes:
Is this the right approach to air pollution control?

The 'National Air Pollution Control Programme' under Directive 2016/2284

Author : Delphine MISONNE, Université Saint-Louis Bruxelles, Belgium

Subtheme : Air quality management

Directive 2016/2284 of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants adds a new dimension to the air pollution control *instrumentarium* : the 'National Air Pollution Control Programme', which is supposed to offer more, in terms of effectiveness and adequacy, than its predecessor under the former National Emissions Ceilings (NEC) 2001/81 Directive.

How seductive it might sound, this new call for sophisticated administrative planning raise questions, when one knows that this only constitutes a new layer, in a landscape of programming that is already quite crowded, while not necessarily keeping all its promises as far as the improvement of air quality is concerned.

Whether in the field of ambient air quality or in the area of greenhouse gases mitigation – there are many links to be drawn (the source of pollutants are often just the same), even if these links are not yet made explicit enough – plans tend to accumulate indeed, not to speak about those requested under other environmental policies. But for which results?

The linkage plans entertain with individual projects, when permits are requested, is a well-known contentious issue. Both under EU law and its interpretation by the European Court of Justice (case *Stichting Natuur en Milieu*, C-165/09), or in some Member States, where the limits of the possible linkage between plans and individual projects is being tested before the domestic jurisdictions, with results repeatedly demonstrating the weaknesses of the instrument. Does the new Directive provide for more clarity or guidance in that regard ?

The purpose of the contribution is to assess the relevance and potential of the new concept of 'National Air Pollution Control Programme', as far as legal issues are concerned, based on the three following questions :

- how shall these planning processes possibly bear on the permitting procedures under the Industrial Emissions Directive ?

- how shall these planning processes contribute to the achievement of the objectives set under the Ambient Air Quality Directive ?

- how shall these planning processes enhance efforts on climate change mitigation (and vice-versa), taking into account the fact that, in countries such as Belgium for instance, administrative authorities might spontaneously refrain from adopting cross-fertilizing pathways, due to mere organizational silo-effects.

The method shall include an analysis of the text of the new Directive, an appreciation of the ins and outs of its negotiation process, but also the interview of various actors that shall be in charge, at national level, of implementing the new planning instruments.

Short biography:

Delphine Misonne is a lawyer, specialized in environmental law and policy (LL.M, King's College London; PhD, USL-B). She holds a position of Research Associate at the Belgian Fund for Scientific Research (FNRS). She teaches environmental law and sustainable development policies at Saint-Louis University Brussels (specialized Master in environmental law and planning law; Law, governance and sustainable development) and at Université Libre de Bruxelles (interdisciplinary Master in Environmental Sciences and Management). Head of the Environmental Law Centre (CEDRE, USL-B), she coordinates various scientific activities around topical issues and emerging new concepts, such as, currently, the '*return of the commons*'. She is a member of the Belgian Federal Council for Sustainable Development, where she co-chairs the product policy group. She is also an active member of various networks, such as Environmental Law Network International.

Her publications are available at :
https://dial.uclouvain.be/DialExport/Portail?method=bibliography&author=Misonne,%20Delphine&type=classic&site=BOREAL

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Significance of Air Quality Plans in the Czech National Regulation

Ilona Jancarova

Pursuant to Directive 2008/50 Member States are obligated to establish air quality plans for zones and agglomerations where it is apparent that conformity with limit values for pollutants established in Annex XI cannot be achieved in a given zone or agglomeration and the levels of pollutants in ambient air exceed the limit value plus relevant margin of tolerance. The air quality plans must set out appropriate measures, so that the exceedance period can be kept as short as possible.

Czech Republic transposed this requirement to the national legislation and Air Quality Improvement Programmes were adopted for given zones and agglomerations. Despite this, Czech Republic is among 17 Member States in which the limit values for PM10 have not been respected since the legislation entered in force in 2005 and against which the Commission started the infringement procedure. The question is, whether measures proposed in Czech Air Quality Improvement Programmes are "appropriate" in the sense of the Directive´s requirement and, at the same time, if they are effective enough to reduce existing air pollution or if the problem consists in inappropriate implementation of the Air Quality Plans required by the Directive because these plans/programmes are not enforced.

Therefore, the contribution will be focused on the Czech experience in implementation of 2008/50 Directive, mainly on legal character of those plans/programmes, their relation to other regulatory instruments, on appropriateness of measures proposed in these plans/programmes and on possible aftermath when measures included in these plans/programmes were proved to be ineffective.

Doc. JUDr. Ilona Jancarova, Ph.D. works as an associate professor at the Faculty of Law, Masaryk University in Brno. Since 2013 she is heading the Department of Environmental Law and Land Law.

Małgorzata Smolak

The enforceability of EU air quality legislation in relation to target values

Air is the subject of *the tragedy of the commons* described by economist William Forster Lloyd where individuals acting independently according to their own self- interest behave contrary to the common good of all by depleting or spoiling (polluting) the shared resource (air) through their collective action.

Aiir quality policy is strictly connected with energy policies as air pollution is caused mainly by the combustion of fuels and mutual relations are not always obvious. Moreover, economic aspects of air pollution are very complex, connected with economic development of Member States as well as with personal life style. Externalities from industry, energy sector, transport and domestic heating for air pollution are significant and the polluter pays principle is not always in place (eg domestic heating). Thirdly the responsibility for air pollution is diffused. On one hand not all emission sources are regulated (eg small combustion stoves), on the other it is not always clear witch public authority is responsible to achieve air quality standards (eg Poland).

The above mentioned issues hamper especially the successful enforcement of air quality target values as its achievement is conditioned on not entailing disproportionate costs. This conditioning seems to be read by some Member States as release from any responsibility to achieve target values.

I would like thus discuss what the right to clean air means in relation to target value taking into consideration the general problems with enforcement of air quality legislation: the right to access to information, the right to participate in decisions air quality planning, the right to access to national courts, the infringement procedure as well as the ones specific for target values as the obligation conduct tests of the disproportionality of costs of actions taken to reduce the pollution level and the obligation to perform activities which are cost-effective.

The economic costs of air pollution reduction should be considered in relation to the primary objective of EU air quality legislation to protect human life and health.

Małgorzata Smolak, Lawyer, Polish Energy Project Leader at Clientearth

Małgorzata Smolak leads Polish Energy Project within Climate and Energy Programme. She works closely with other NGOs in Poland and Europe on decarbonisation Polish energy sector and transformation towards low-emission economy. Her main interests are air pollution and industrial emissions. She was involved in imposing a ban on using solid fuels for domestic heating in Kraków and adopting so-called Anti-smog Act in Poland.

Before joining ClientEarth, she held several roles in local and regional government bodies, the private sector and in a peacekeeping mission in Bosnia and Herzegovina. She is a lawyer with a Master's Degree from Jagiellonian University. She also holds postgraduate diplomas in diplomacy and international relations and in European integration.

Session II.A

Rosalind Malcolm, LLB (Hons), PhD, Barrister, (Head of School: 2005 – 2010) is Professor of Law and Director of the Environmental Regulatory Research Group in the School of Law, University of Surrey. Currently co-investigator of 2 FP7 EU multidisciplinary research projects, she is part of the research community at the University of Surrey which was awarded the **Queen's Anniversary Prize for Water and Sanitation** in 2012 for its collection of research work in these fields. Publications include: Ayalew, Chenoweth, **Malcolm**, Okotto, Pedley, *"Small Independent Water Providers: their position in the regulatory framework for the supply of water in Kenya and Ethiopia"* Journal of Environmental Law 2014 26 (1): 105-128. (Joint winner of Richard Macrory Prize for best article in the Journal of Environmental Law (2014)) and Ayalew, Chenoweth, Kaime, **Malcolm**, Okotto, Pedley, *"*Water Law, Human Health and the Human Right to Water and Sanitation" in Lankford, Bakker, Zeitoun, Conway, (eds), *Water Security: Principles, Perspectives and Practices,*(2013 Routledge).

ENSURING ECOLOGICAL SUSTAINABILITY BY MEANS OF LITIGATION BEFORE THE EUROPEAN COURT OF HUMAN RIGHTS

Natalia Kobylarz

ABSTRACT

The European Court of Human Rights has examined over 150 applications related to the natural environment. The article begins by offering a selective and systematised analysis of this vast body of case-law. Whenever warranted, it applauds the European Court's acceptance of surrogate protection of the environment through civil and political rights and the doctrine of positive obligations, or voices criticism of its conservative approach to giving precedence to economic considerations over the environmental harm. The article then provides a succinct comparison with the environmental case-law of the Inter-American Court of Human Rights, which expertly connects individual and collective rights in the context of the use of natural resources. Later, the study of the work of both human rights courts extends to the process of the execution of the relevant judgments. It is observed, in this context, that the remedies for environmental human rights violations benefit not only the individual applicants but also other members of the current and future generations, thus showing how human rights are also collective. Lastly, the article takes a forward-looking view on the work of the European Court and predicts that, in the era of the rise of environmental awareness in international law, the tribunal is now equipped to employ ecological rationality to explain the value of nature in cases in which its protection paradoxically, seems to collide with conventionally-perceived individual rights.

The author thus argues that, without underrating the other platforms of ecological justice, environmental cases should continue being litigated through claims under the first-generation human rights.

Contrary to opinions common among environmentalists, no conflict exists in defending ecological sustainability through human rights even though they are indeed inherently anthropocentric. The environment cannot be protected independently of a man because at the centre of the cause and of the solution of the problems such as pollution, climate change and deforestation are individuals with rights guaranteed by national and international law. Insofar as the civil and political rights also impose obligations, they may effectively limit individual rights in order to protect common interest of ensuring ecological sustainability. In this context, the article refers to the awaited judgment of the European Court, in *Ahunbay and Others v. Turkey,* which concerns intergenerational rights to cultural heritage threatened by a construction of a barrage in Mesopotamia and the advisory opinion of the Inter-American Court requested by Colombia in relation to the marine pollution of the Caribbean.

Litigation before the European Court, can be an effective albeit, last-resort mechanism of redressing environmental damage, halting unecological projects, and perhaps even preventing environmentally unfriendly policies. Its jurisprudence is dynamic and susceptible to change. The notion that the European Convention on Human Rights is a living instrument which must be interpreted in the light of present-day conditions is firmly rooted in the tribunal's case-law. A wise and wide-spread environmental litigation strategy is essential in making the European Court take the leap towards the necessary revision of its archaic approach to environmental cases and ultimately, to the development of a substantive right to environment.

BIOGRAPHY

The author holds Master of Laws degrees from Poland and the United States. She is a senior lawyer at the Registry of the European Court of Human Rights where she drafts judgments in cases brought by individual applicants, including in relation to environmental protection. In 2016 she was seconded to the Inter-American Court of Human Rights as advisor on the European human rights jurisprudence. She has extensive public speaking experience. Since 2004 she has participated as expert-speaker in numerous human rights conferences and training-programmes in Europe and Latin America. She also teaches in-house courses on the prohibition of torture and on the environment. Her article on the Aarhus Convention and procedural rights is being prepared for publication. She is aspiring to contribute to environmental projects in her capacity as a human rights lawyer, sharing her work experience and the findings of her substantial research in the area of environmental litigation.

Submission to cross-cutting theme "Ecological sustainability – fundamental questions and implications for environmental law and governance"

Human Health and the Environment: Time for a New Approach to Environmental Law

Valerie Fogleman, Professor of Law
Cardiff University School of Law and Politics; Consultant, Stevens & Bolton LLP

Environmental law protects human health and the environment from activities that may, or do, cause harm to them, in particular harm from chemicals and waste. Environmental law, therefore, regulates, and imposes liability for, the unauthorised release of chemical pollutants into the air, water and soil, the unauthorised treatment, storage and deposit of waste, as well as regulating pollutants in products including food.

Protection of the environment is, however, secondary. The primary concern of environmental law is the protection of human health; the environment, including ecosystems, is protected only as it affects human health.

The primary focus on human health arose for various reasons. A key reason is the introduction of many modern environmental laws in the late 1960s and 1970s when harm to public health from contaminants in drinking water and air had become a major issue. Another key reason is the extension of long-established public health legislation in some jurisdictions to include harm to the environment.

Commentators have argued, however, that environmental law is failing to halt the degradation of the earth and the loss of biodiversity on which our health and wellbeing depends. Arguments include the issuance of environmental permits that allow the continued emission of chemical pollutants into the environment without adequately protecting ecosystems from their effects. Another argument is 'agency capture' by the regulated community. A further argument is that much environmental law is based on cost benefit analysis with often unwarranted assumptions about the environment. Yet another argument is that environmental law does not recognise that people are part of, and not apart from, nature. That is, nature can survive without people; people cannot survive without nature.

This presentation will summarise the various arguments why a change in environmental law is necessary. It will also present the further argument that environmental law, and the concepts underlying it, should be changed so that the environment is no longer treated as a secondary concern. Whilst the protection of human health should not be downgraded, it is crucial that protection of the environment is no longer treated as a secondary – and much lower – concern.

Finally, the presentation will offer suggestions for changes in environmental law that will adequately protect the environment so as to play a much greater role in halting the degradation of the earth and the loss of biodiversity.

Fostering environmental protection through religious freedom rights

As it is well known, religious freedom rights are very well established in International Law, and in the constitutions of most of the countries around the world. One of the fundamental elements of religious freedom rights is the protection of places of worship.

The protection of those places has been implicitly granted in various international human rights legal instruments, as a necessary part of the right of worship. For example, in articles 2(1), 18, and 27 of the UN International Covenant on Civil and Political Rights, or in article 18 of the Universal Declaration of Human Rights. The relationship between the right to worship and the protection of religious places has been clarified in article 6(a) of the Declaration on the Elimination of All Forms of Intolerance and of Discrimination Based on Religion or Belief (Resolution 36/55 of 25 November 1981).

Resolution n. 6/37 of 14 December 2007, adopted by the UN Human Rights Council the, explicitly affirms on (paragraph 9 (e) and (g)) that the protection of religious places and sites should be considered as a manifestation of the right to worship.

Furthermore, all the International Human Rights Instruments concerned with Indigenous People Rights have norms that deal specifically with the protection of sacred sites, or religious places (e.g. article 13 of the ILO-Convention n. 169, of 1989; article 12 of the UN Declaration on the Rights of Indigenous Peoples of 2007; Article XVI (3) of the American Declaration on the Rights of Indigenous Peoples, of 2016).

The concept of place of worship or the one of sacred sites may have an important role in the resolution of certain environmental conflicts,. Such is the case when those places are located in natural environments. In this sense, the intersection between religious freedom and environmental and cultural rights could be explored, with important results for safeguarding the values that lie beneath the motives of the three declaration of rights previously mentioned.

Some important court decisions related to this matter are being adopted around the world. The Indian Supreme Court decision in the Dongria Kondh case, in 2013, ruled in favor of the community, solving the environmental conflict trough the interpretation of the right to religious freedom. On the same line , some decisions of the Inter-American Court of Human Rights (e.g. Yakye Axa v. Paraguay (2005) or Río Negro Massacres v. Guatemala (2012)), have considered article 13 of the ILO-convention as an interpretative key for the analysis of property rights.

The aim of this paper is to analyze how these two types of rights are being interpreted by courts in leading cases on the matter, in order to identify new and different ways of protecting natural resources by guaranteeing the respect of religious beliefs, community-based conservation and land rights.

Brief Curriculum.

Jeronimo Basilio São Mateus, LL.B (Federal University of Sergipe, Brazil, 2005); LL.M (Centre for Environmental Law in Tarragona (CEDAT), Rovira I Virgili University, Spain, 2014); PhD Candidate (Centre for Environmental Law in Tarragona

(CEDAT), Rovira I Virgili University, Spain, 2014-, fellowship from the Spanish Ministry of Economy, Industry and Competitiveness). My PhD research analyses the concept of Sacred Natural Sites in International Law, and how religious beliefs and practices can be integrated into nature conservancy systems, through the adoption of a community-based approach in the management of protected areas. I have done research stays at the *Instituto Socioambiental* (Brazil, 2014), and at the National Autonomous University of Mexico (2016). As an attorney at law, I have worked in several different cases regarding environmental conflicts in Brazil.

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ANNUAL EELF CONFERENCE 2017 - COPENHAGEN

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – LEGAL APPROACHES & INSTRUMENTS

Title:	Towards the Rights of Mother Earth (Perspectives, Challenges and Opportunities)
Applicant Name:	Santiago Vallejo Galárraga, PhD Student
Institutional Affiliation:	University of Szeged, Hungary
E-mail address:	wsvallejo@yahoo.es
Related subtheme:	Ecological sustainability – fundamental questions and implications for environmental law and governance

- Abstract -

This proposed lecture will aim at the analysis of biocentrist principles, as support of the theories that are currently promoting the recognition of nature, as a subject of law, the expecting challenges before the extention of its rights at the legislative level and judicial one, as well as the opportunities to promote its incorporation in the international and European legal framework.

Thus, when Professor Christopher Stone proposed to grant legal standing to nature in 1972, echoeing in Justice Douglas' dissent about the famous case Sierra Club v. Morton before the U.S. Supreme Court, it seemed to be impossible to think about the lawful recognition of rights of mother earth. It was the time of the Stockholm Declaration and the human right to an environment of quality, which some years later would become in the human right to healthy environment, above all since the emergence of the Rio Declaration in 1992, when it was implemented in multiple legislations sponsored by the contents of the sustainable development.

Until today, the tendencies have been absolutely anthropocentrist (human-centered) not only in professional parlance but also in legal regulation, given the human rights' notion necessarily implies a worthier status of human beings over other living beings.

Nevertheless, with the years and after numerous researches, such as Stutzin's, Berry's or Cullinan's among others, the perspective has begun changing or at least the shift seems feasible. In this context, certain theories supported by ethical and legal approaches from Biocentrism or Echocentrism (e.g. GAIA, Earth Jurisprudence, Pachamama, and so on) have been part of the global debate about the mechanisms to avoid the environmental devastation, or al least diminish its harmful effects.

Moreover, nowadays several legislators and judges are incorporating somehow those biocentrist principles into juridical systems all over the world. In fact, Ecuadorian Constitution provided the recognition of rights to nature in 2008, just as Bolivian law did it in 2010. Likewise, there are more than twenty ordinances in which this acknowledgement

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has been implemented in United States of America since 2006 onwards, and one can also find a judicial settlement recognizing legal personhood in favor of a river in New Zealand, in 2012.

Besides, there is a draft of Universal Declaration of the Rights of Mother Earth, which was proposed during the World People's Conference on Climate Change and the Rights of Mother Earth, carried out in Cochabamba, Bolivia, on 22 April 2010.

All of these examples will allow reflecting about a transition from the prevailing doctrine of the human right to a healthy environment to the rights of nature, as a subject of law, shelterd under the Biocentrism's principles.

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ANNUAL EELF CONFERENCE 2017 - COPENHAGEN

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – LEGAL APPROACHES & INSTRUMENTS

Title:	Towards the Rights of Mother Earth (Perspectives, Challenges and Opportunities)
Applicant Name:	Santiago Vallejo Galárraga, PhD Student
Institutional Affiliation:	University of Szeged, Hungary
E-mail address:	wsvallejo@yahoo.es
Related subtheme:	Ecological sustainability – fundamental questions and implications for environmental law and governance

- Biography -

Santiago Vallejo Galárraga is an Ecuadorian Attorney who has been Professor of Law at the Equinoccial University of Technology since 2004. He has also performed a civil servant career at the Electrical Corporation of Ecuador, where he led the Direction of Social and Environmental Management at the Unit of Business TRANSELECTRIC, responsible of the transmission lines nationwide. Currently, he is a scholarship holder of the Stipendium Hungaricum Program in order to pursue his PhD degree at the University of Szeged, in Hungary.

Session II.B

Short cv:

An Cliquet is a lecturer at the Department of Public, European and International Law of Ghent University and is teaching courses on public international law in general and courses on international and European biodiversity law. The research of An Cliquet is situated in the field of international, European and national biodiversity law, encompassing both marine and terrestrial biodiversity law. Her current research activities focus on ecological restoration in international law, European nature conservation law, climate change and nature conservation and legal aspects of ecosystem services. She supervised or is supervising PhD research on ecological restoration; ecological refugees; gender and biodiversity; a rights-based approach to conservation; the protection of the Congo basin; health and biodiversity; wildlife trade in Africa; the legal protection of urban biodiversity; the protection of transboundary watercourses under biodiversity law; the protection of children during armed conflicts.

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Adaptive management as novel permitting strategy within the context of Natura 2000: lessons to be learnt from recent case-law developments before the CJEU?

Contrary to popular belief, the EU Nature Directives do not include a ban on project development, nor do they require planning authorities to principally reject permit applications for potentially harmful activities in the context of EU protected sites. However, Article 6(3) of the Habitats Directives does put forward a strict individualized test for potentially harmful plans or projects nearby Natura 2000. Arguably, faced with stricter judicial scrutiny and a higher compliance rate, project developers have less leeway when considering developments within the context of such valuable sites. According to the steadfast case-law of the CJEU, Member States have to apply the precautionary principle when reviewing permit applications. Since planning authorities are moreover legally required to take into account the actual conservation status of the protected habitats and species when assessing the acceptability of a plan or project, the margin to grant permits for creeping spatial development has become severely limited. This is especially so in Member States where the majority of the protected habitats and/or species find themselves already at an unfavourable conservation status. Whilst the recently conducted REFIT check concluded that, within the framework of broader EU biodiversity policy, the EU Nature Directives remain highly relevant and are fit for purpose, there exists an increasing need for more flexible tools to align the preventative approach underpinning the rules on habitats assessment with the need for further economic development.

*Adaptive managemen*t has recently come forward as interesting, alternative approach to better align economic development with the strict protection requirements. It is generally defined as a flexible decision making process that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. To that end, careful monitoring of the outcome of these actions and the implementation of strict control measures is deemed necessary, not only to advance scientific understanding but also to adjust potential harmful operation as part of an iterative learning process. Such strategies have become increasingly popular as instruments to overcome the alleged static black-and-white approach to the precautionary principle within the scope of Article 6(3) of the Habitats Directive. By and large, such strategies accept that uncertainty is an inherent factor in the assessment process. Notable applications, of such strategies include the Dutch Programmatic Approach to Nitrogen (PAN), which entered into force in 2015, and the proactive habitat restoration plan, which was implemented in the Port of Antwerp in order to allow for further harbour expansion.

However, recent case-law developments before the CJEU, such as *Orleans* (case C-387/15), have demonstrated that adaptive management does not constitute a 'free ticket' for burden relief within the context of Natura 2000. In this paper, the chief requirements and constraints to be taken into account when integrating adaptive management techniques within the context of Article 6(3) of the Habitats Directive are outlined. It is amongst others concluded that, especially within the context of proactive habitat restoration programs, adaptive management cannot serve as a justification for validating habitat

impairments pending the implementation of habitat restoration measures. More general conclusions as to the usage of adaptive management are presented in the concluding section of this paper.

Keywords: biodiversity and nature management, EU Nature Directives, proactive habitat creation, mitigation, compensation
Cluster: Biodiversity and Nature Management
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Biblio

Hendrik Schoukens graduated as a Master in Law at the Catholic University of Leuven in 2005 (magna cum laude). In 2007, he graduated as Master in Environmental Law (summa cum laude) at Ghent University. In 2010, he received his complementary Master's Degree in Environmental Law at the Facultés Universitaires Saint-Louis and the Catholic University of Louvain (magna cum laude).
Since January 2006, he has been working as an environmental lawyer at LDR Advocaten, where he focuses on biodiversity-related cases. In 2011, he co-authored the first edition of the handbook of Biodiversity Law within the Flemish Region. In 2016, he edited the first edition of the handbook of EIA Law within the Flemish Region.
Since June 2007, Hendrik has been a voluntary research assistant at the department of International Public Law of Ghent University and in January 2012 he joined the department as a fulltime assistant. He is currently preparing a doctoral thesis on the legal aspects of ecological restoration under the supervision of Prof. Dr. An Cliquet.

Tom Chambers EELF Conference 2017 Abstract

Biography:

Tom Chambers is one of fifteen doctoral students in the class of 2018 Juris Doctor program at Queen's University Belfast School of Law in Northern Ireland. Prior to this, he graduated from Fordham University in New York City with a BA in History and BA in Philosophy. Tom earned his LLM (R) from the University of Edinburgh Law School in History and Philosophy of Law in 2013. He intends to take the 2019 New York Bar Exam following the submission of his thesis on corporate criminal liability in 2018.

Coming In On One Wing And A Prayer: Navigating Compliance with the EU Wild Birds and Habitats Directives
(subtheme: Biodiversity and Nature Management)

Coyle and Morrow warned in 2004 that environmental law risks losing sight of its intrinsic value, and, without a sense of history and philosophy the discipline presents itself as listless. The European Union, through the Wild Birds Directive (WBD) and Habitats Directive (HD), forces a discussion of the foundational principles guiding environmental law today. The WBD, initially Council Directive 79/409/EEC, has been described as one of the original pillars of nature conservation law in Europe; not only must it be incorporated into national law for all Member States, its principles are directly binding, per Art. 288(3) TFEU.

The WBD emphasizes the migratory nature of birds granted protection as a justification for shared Member State responsibilities. Indeed, per Art. 4(1), designated land must be provided for birds particularly at risk and similar requirements per Art. 4(2) apply to regularly occurring migratory species such as the Atlantic puffin. Protection can be bolstered by national legislation like the Wildlife and Natural Environment (Northern Ireland) Act 2011 Sch. 1(2), providing 'special penalties' to defend the Atlantic puffin, but this is not a far-reaching comprehensive solution.

The Atlantic puffin and other wild birds are now 'monitored under protection programs in the Union or under international obligations' in the Commission Implementing Decision EU 2016/1251. This is of limited use, yet can be helpful in light of *R v Stacey* [2017 NLTD(G) 23] to address persisting concerns with migratory bird hunters .

In light of these inconsistencies, the HD provides for the creation of specially listed bird habitats. Birds like the osprey are included and granted further protection under Sch. 1 of the UK Wildlife and Countryside Act 1981. A number of vulnerable birds, however, are not afforded such careful attention. Birds not directly protected may obtain a remedy by greater emphasis on the Aarhus Convention, which has

considerable latent potential to advance global initiatives to protect them. Lord Stewart referred to the Aarhus Convention in *The Royal Society for the Protection of Birds v The Scottish Ministers v Inch Cape Offshore Limited* [2016] CSOH 103 (para. 45-48) indicating that a continual obligation exists to provide relevant information, which would improve the effectiveness of decisions relating to environmental law.

Greater public participation and awareness can lead to stronger protection of vulnerable wild birds and reinforce the common heritage between the Member States. The WBD declares that migratory wild birds of Europe are a 'common heritage' and a responsibility requiring adequate protection. This goal of wild bird conservation is linked to central European Community initiatives to improve living conditions, and constitutes a shared heritage for all Europeans.

Especially in the case of migratory birds, compliance cannot be obviated. As demonstrated through ECJ jurisprudence, once established, specially designated bird protection areas are final determinations with lasting legal obligations. Of the three worlds of compliance, then, the *world of law observance* is the only viable solution. This is especially so if birds expected over the white cliffs of Dover do not return, as the European experiment may have failed.

Forestry and the no net loss of biodiversity principle

No net loss (NNL) of biodiversity is an emerging principle of environmental law, the importance of which has grown due to continuous global loss of biodiversity. The NNL principle includes the so called mitigation hierarchy (avoid, mitigate, restore, compensate). In the EU, Natura 2000 legislation (habitats and bird directives) is the most comprehensive example of implementing this principle. There are already examples of implementing the principle in building e.g. roads and railroads. Other environmental legislation does not implement the NNL principle as consistently. NNL is most commonly related to projects that change the previous land use: e.g. from forest or pasture to industrial area. It seems, however, to be more rare and difficult to implement this principle to ongoing land use such as forestry or agriculture.

I analyse how Finnish legislation (the Forest Act and other legislation, especially the Nature Conservation Act) concerning forestry currently relates to the NNL principle and all the four stages of it, and would there be need for NNL in forest use, and what are the main gaps in implementing it thoroughly. I will use a) a forest species (flying squirrel) protected by the Habitats Directive as an annex IV (a) species and by the Nature Conservation Act, and b) a habitat (rivulets) protected by the Forest Act as examples of implementing NNL in Finnish forest management.

My thesis is that NNL has not been acceptably incorporated into Finnish legislation. Only avoiding and restoring has been partly implemented into Forest Act, but the enforcement of those regulations is not on a sufficient level. Nature Conservation Act is stricter on avoiding the deterioration of the habitats, but the threshold for the obligation to restore or compensate deteriorations is too high. All steps of the mitigation hierarchy should be applied and enforced in forestry in order to slow down the decline in forest biodiversity in Finland.

Biography

LL.D. Minna Pappila is a postdoctoral researcher at the Faculty of Law, University of Turku, Finland. She has specialized in environmental law, especially in Finnish and Russian forest regulation. She defended her PhD in 2011. She has also done research related to corporate social responsibility in the forest and oil sectors of Russia. She has worked in many research projects of the University of Eastern Finland (e.g. water regulation project in 2014-2015). Currently Pappila is part of the research project of the University of Lapland "*Oil Production networks in the Russian Arctic: societal impacts and potential for partnership"* (2015-2018), which emphasizes the rights of indigenous people, oil production networks and CSR of oil companies. Currently Pappila is also doing research on the No Net Loss principle and biodiversity protection.

Session II.C

Bio note

Dr Bjørn-Oliver Magsig is a Lecturer in Law at University College Cork (Ireland) where he focuses on international environmental law, water diplomacy and the links between natural resources, international security and equity. He teaches Principles of Public International Law, Human Rights Law, Contemporary Issues in International Law, International Environmental Law and Law of the Sea. Bjørn-Oliver has lead various interdisciplinary projects revolving around the socio-legal challenges of managing transboundary natural resources, serves on the Managing Board of the European Environmental Law Forum (EELF) and is a member of the IUCN World Commission on Environmental Law.

Fifth EELF Conference

Sustainable Management of Natural Resources - Legal Instruments and Approaches

Authors: Lorenzo Squintani and Marleen van Rijswick

Title: Towards more effective protection of water resources

Abstract

The Netherlands is a country that lives on water and has a long and fascinating history of water management. The Dutch Ministry is proud of its achievements and claims to be one of the best performing Members States in this field. Yet, water quality in the Netherlands is not good, and a recent prediction made by the Netherlands Environmental Assessment Agency (Planbureau voor de Leefomgeving), shows that by 2027 between 95% and 60% of Dutch waters will not fulfil the standards established under the Water Framework Directive. Clearly, despite longstanding Dutch experience in water management, the effectiveness of implementation of EU Water law can still be improved upon.

In this presentation, I will provide an initial set of recommendations to improve the effectiveness of European water law by way of a better implementation of the substantive requirements of the Water Framework Directive and the procedural requirements of the Water Framework Directive and the Aarhus Convention in the Dutch legal order. Effective environmental policies, as laid down in EU environmental law, require both substantive and procedural elements. Only if both are implemented well it is possible to speak of effective environmental or water legislation and protection.

As regards substantive requirements, I will show that the linkage between the quality objectives under Article 4 of the Directive and the authorization of specific projects is only an indirect one in the Netherlands, i.e. through the medium of the programme of measures adopted for a specific water body. Moreover, I will explain that the binding character of the quality objectives under Article 4 of the Directive is not as clearly formulated as the Directive requires. Consequently, in the Netherlands there is too much room for applying a so-called net-loss approach.

About the procedural requirements, I will show the room available for improving both participation and judicial protection under Dutch water and environmental law by juxtaposing the Aarhus Convention to Dutch water and environmental law.

At the endo f the presentation I will propose the following three statements for discussion:

1) If the Netherlands is among the best Member States, despite its dramatic performances under the Directive, what about the others?

2) Public participation in water management risks becoming a political facade.

3) Judicial protection against water plans and programme under EU and national law is in need of significant improvements.

Coherence and Coordination under the Water Framework Directive

Henrik Josefsson
Department of Law
Uppsala University

Abstract

One of the aims of the water framework directive (WFD) is to provide an overall framework for community, national and regional authorities to develop coordinated and coherent water policies. Besides providing its art. 4 objectives the establishment of a frame for coherence could be one the WFD more ambitious aims. This paper examines the aim of coherent water policy by discussing the main instrument to provide national coherence under the WFD, the programme of measures (art. 11(3)(4)(5)). What art. 11 implies for the Member States has not been a question for the EU Court of Justice so far, besides to some extent by stating that the provision of the WFD must be implemented with indisputable binding force and the specificity, precision and clarity needed to satisfy the necessities of legal certainty. However, the Court has developed a view of what an appropriate programme of measure should resemble under the earlier community law, such as, the nitrates directive. The Courts case law under the nitrates directive show that a programme of measure should be a comprehensive programme that can attain the objectives in focus, it should provide a coherent approach, if there is indication that additional measures or reinforced actions are need these measures/actions must be implemented and a programme of measure should be based on the best available scientific and technical data.

This paper asks what the Courts case law under the earlier community law mean for the WFD and art. 11 more explicitly. Thus, can it be assumed that the Member States need to provide programmes of measures under the WFD that correspond to the case law under the earlier community law? And, if this is the case, are the Member States WFD programme of measures corresponding with the Courts case law? To answer the second question, an analysis of the latest Swedish programmes of measures will be provided to see if they correspond to comprehensiveness and coherence aimed for by the WFD and Court of Justice.

Henrik Josefsson
Uppsala University
Faculty of Law

Biography

2015 Doctor of Laws, Environmental Law, Uppsala University
2008 Master of Arts with a Major in Jurisprudence, Luleå University of Technology
2007 Master of Science with a Major in Biology, Umeå University

Dissertation

Josefsson, H. *Good Ecological Status: Advancing the Ecology of Law* (Uppsala Universitet 2015)

Peer-review Articles

Josefsson, H. (2016). *Good Ecological Potential - A Credible Objective for Water Management?*. Journal for European Environmental & Planning Law, 13(2) 167-189.

Josefsson, H. (2015) Ecological Status as a Legal Construct – Determining its Legal and Ecological Meaning. *Journal of Environmental Law* 27(2) 231-258.

Josefsson, H., Baaner, L. (2011) The Water Framework Directive – A Directive for the Twenty-First Century?. *Journal of Environmental Law* 23(3) 463-486.

Bringing back environmental flows: The case of salmon and the lack of legal adaptivity in Finnish rivers

Abstract

Most of the large Finnish rivers were licensed and built for hydro power after the second world war. The need for energy triumphed over all the other interests leading to a significant decrease in migratory fish species, such as salmon. Throughout their operation, hydropower plants and their licenses have enjoyed strict protection against administrative or legal review that would result in significant economic losses to the plant operator. In this way, the Finnish legal framework has been highly resistant in the face of bringing back environmental flows and restoring migratory fish species to the Finnish rivers. Nevertheless, the Finnish Government's clear aim is to introduce fish passages and the natural reproductive cycle of migratory fish species in built and regulated rivers that block the ecological continuum.

Considering the significant normative inputs stemming from the EU Water Framework Directive, this presentation discusses possible avenues for restoring environmental flows into the Finnish rivers in line with the obligations set in the directive. The presentation argues that the interpretation of Finnish water law in relation to environmental flows and ecological continuum is outdated and too conventional. Finnish water administration has not reacted quickly enough to the changes in circumstances caused by the development of EU law, and the declining importance of hydropower for the Finnish energy policy. We argue that the Finnish water law already contains the necessary tools for reviewing existing fishery regulations in water permits but these tools are not capitalised on in practice.

It must be noted, however, that the review of fishery regulations in water permits is a multidimensional and river-specific task. Technically, a fish passage and restoration measures as well as monitoring of the success of measures may be required. Cooperation between authorities and hydro power companies is recommended but authorities must also be able to take necessary measures in the case of unsuccessful cooperation.

Biography

Dr. Antti Belinskij (LL.D.) works as a Senior Researcher of Environmental Law at the University of Eastern Finland Law School. He is specialised in water, natural resources and nature conservation law. He currently heads legal research in the Winland project funded by the Finnish Strategic Research Council. In addition, Belinskij is an Editor-in-chief in the leading environmental law journal in Finland (Finnish Environmental Law Review), and a member of the Board of the Finnish Society for Environmental Law.

Dr. Niko Soininen (LL.D.) is a senior lecturer of environmental law and jurisprudence at the University of Eastern Finland School of Law. He has a keen interest in environmental law, administrative law and jurisprudence. He is a co-editor of a book entitled 'Transboundary Marine Spatial Planning and International Law' (Earthscan/Routledge) and author of several articles and book chapters on European and Finnish water law and marine environmental law. Soininen is also an Editor-in-chief in the leading environmental law journal in Finland (Finnish Environmental Law Review). Outside of academia Soininen has worked as an adviser for HELCOM and the Ministry of Agriculture and Forestry and the Ministry of the Environment in Finland.

Abstract for the 5th annual EELF conference, Copenhagen 2017:

Adaptive Water Governance in Swedish Case Law – Analysing the Legal Application of Environmental Quality Standards for Water

Johanna Söderasp* and Maria Pettersson

Abstract

One of the cornerstones of the legal system is to protect traditional legal values associated with the rule of law, such as legality, stability, and legal certainty. In an adaptive governance system however, the opposite of long-term stability is desired. Adaptive management of *inter alia* water resources calls for constant evaluation and hence flexibility in the measures taken, since the achievement of environmental objectives are the main goal. The European Union Water Framework Directive (2000/60/EC) (WFD) prescribes an adaptive water governance system, with environmental objectives in focus and an adaptive water management cycle to guide the way to achieve them. This paper analyses the potential conflict between the adaptive water governance system of the WFD, including the obligation of loyal interpretation and application of EU-law under the principle of sincere cooperation, and the more traditional interpretation and application of legal rules in authorisation processes in Swedish courts. The study was conducted through a detailed analysis of several high profile court cases concerning the application of environmental quality standards for water. The selection of court cases represents both the time before and after the European Court of Justice's (ECJ) ruling in the Weser case in 2013 (case C-461/13). The result indicates an inertial tendency in the legal application of environmental quality standards in Swedish courts, including a reluctance to fully implement EU-law as interpreted by the ECJ. The overall conclusion is that legal certainty aspects in a traditional sense, *inter alia* in the form of predictability and stability for an applicant or permit holder, often outweighs flexibility as desired in adaptive water governance, when the Courts assess and apply environmental quality standards for water, particularly in authorisation processes.

Biographies

LL.M Johanna Söderasp is a doctoral student specialising in Environmental and Natural Resources Law at Luleå University of Technology. Johanna has concentrated her research on water law and sustainable and adaptive water governance in foremost a European perspective. She has especially focused on the adaptive water governance system of the European Union Water Framework Directive (WFD), including its implementation into the Swedish legal and administrative system.

Dr. Maria Pettersson is a Professor in Environmental and Natural Resources Law. Pettersson's research is primarily focused on the function of law in relation to the management and utilization of natural resources, often considering climate change. Her previous research includes: forest governance with a focus on climate adaptation in areas such as water management, biodiversity protection and control of invasive species; planning and permitting processes for industrial activities such as mining and energy installations, including the development of renewable energy as a possibility to mitigate climate change; and flood risk governance in a European perspective.

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Session II.D

5th EELF Annual Conference: "Sustainable Management of Natural Resources – Legal Approaches and Instruments", 30th of August – 1st of September 2017 in Copenhagen

Abstract

Sustainable Management of Natural Resources – The Role of European Cities

Dr. Cathrin Zengerling, research associate at the HafenCity University Hamburg (Germany)

Urban infrastructures and lifestyles are responsible for significant shares of resource consumption. For example, in 2005, approximately 75% of global material flows were consumed in cities. Nowadays, about three quarters of Europe's and half of the world's population lives in cities. The global urban population is expected to rise to 66% by 2050.

In the European Union, among others, the Europe 2020 Strategy and the 7th Environment Action Programme address cities as key actors in sustainable development. In 2015, the European Environment Agency published several reports on resource efficient cities. The importance of city level action is also widely recognized in recent international soft law such as the 2030 Agenda for Sustainable Development adopted by 193 countries, including all EU countries, in September 2015. Sustainable Development Goal (SDG) 11 explicitly targets the role of cities. Among others, governments committed "to reduce the adverse per capita environmental impact of cities" (SDG 11.6) and "substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards (…) resource efficiency (…)" (SDG 11.b). In the 'New Urban Agenda', adopted by world's governments in October 2016 at the UN Habitat III Conference in Quito, Ecuador, governments "reaffirm [their] global commitment to sustainable urban development as a critical step for realizing sustainable development in an integrated and coordinated manner at global, regional, national, sub-national, and local levels, with the participation of all relevant actors" (para 9).

However, these political mandates are far from being put into practice. The reliable steering of urban resource flows is still a rather futuristic endeavor. The research presented here aims to provide first insights into the status quo and future potential of strategic urban governance of resource efficiency in selected European cities. An essential component of successful strategic governance is accountability – in both senses of the term. On the one hand, it addresses the political and legal responsibility of cities to make resource efficiency a central part of their political agenda. On the other hand, it refers to the ability to measure and thus, account for, urban resource flows. Both forms of accountability are inherently interconnected. Accountable governance of urban resource flows presupposes the ability to measure them and trace changes. The presentation draws on the results of studies on the urban metabolisms of Hamburg, Paris, and Lisbon and deducts policy implications for the local, national and European political and legal frameworks in order to enhance cities' contribution to the sustainable management of natural resources.

My main theses are:

1. Cities are crucial actors in the sustainable management of natural resources.
2. There is an international and a European political mandate for resource efficient urban development but no accountable practice as of yet.
3. Local, national, and European political and legal frameworks should be further developed to strengthen the role of cities in the sustainable management of natural resources.

The presentation would be of a cross-cutting nature containing elements of the subthemes 1 – 4.

Biography

Dr. Cathrin Zengerling, LL.M. (University of Michigan) is a research associate at HafenCity University, Hamburg and freelance attorney specialized in international, European and national environmental and planning law. She holds a PhD in international environmental law and has worked for several years as an attorney at the law firm Rechtsanwälte Günther in Hamburg in the fields of energy, planning and environmental law. At HafenCity University her teaching and research focuses on the study programs of Urban Planning and the international Master's program Resource Efficiency in Architecture and Planning (REAP). In her post-doc research she analyses the current and potential future role of cities in governing their carbon and material footprints.

Abstract for the Annual EELF Conference 2017 - Copenhagen (Denmark), 30-08/1-09-2017

Thomas de Römph, LL.M., PhD candidate - KU Leuven & Hasselt University (Belgium)

Thomas is a Ph.D. candidate pursuing a joint degree at the Department of European and International Law at KU Leuven and the Centre for Government and Law at Hasselt University (Belgium). He is finishing a doctoral dissertation on the obstacles to the Circular Economy transition in EU environmental law. The main focus of the thesis is on the Ecodesign Framework Directive, the Waste Framework Directive and the REACH Regulation. It follows that his affiliations are resource, product, waste and chemical law, with a particular emphasis on the integration a life-cycle perspective in these fields of law. Until recently, Thomas was also a junior researcher at the Flemish interdisciplinary Policy Research Centre for Sustainable Materials Management.

Topic of the abstract

Circular Economy, Ecodesign Framework Directive, ecodesign, wooden products, fragmentation and coherency

Subthemes

4) Raw materials and waste management, and to a lesser extent 5) Ecological sustainability – fundamental questions and implications for environmental law and governance

Abstract

Potential for the Circular Economy transition? The broadening of the scope of the Ecodesign Framework Directive - a case study on wooden products

Due to numerous environmental challenges relating to resource extraction, product manufacturing and use and waste treatment, the call for using materials more sustainably is placed high on the EU agenda. This resulted in the publication of the Commission's Circular Economy Package mid-2015, which offers many proposals to change policy and legislation in view of transforming Europe's economy into a circular one.[1]

The Package highlights amongst others that the Ecodesign Framework Directive[2] is mainly focused on energy-efficiency during the use of electronic devices.[3] While this can be historically and practically justified, the Circular Economy requires a different approach: ultimately, non-energy related impacts occurring throughout the entire product life-cycle should be taken into account in product design of all products. In light of this, the Commission plans to '*examine options and actions for a more coherent policy framework of the different strands of work of EU product policy in their contribution to the circular economy*' in 2018.[4] Depending on how the implementation of the Circular Economy develops in the EU, it may well be that the extension of the scope of the Ecodesign Framework Directive to non-energy-related products will be covered by the study.

The aim of the presentation is to explore the potential for broadening the Directive's scope to all products. Wooden products are used as a case study. It is inherent that once the expansion of scope will be studied considering wooden products, the non-energy-related ecodesign requirements would be

[1] See above al: European Commission, *Closing the loop – An EU action plan for the Circular Economy*, COM(2015) 614.

[2] Directive 2009/125 of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products, OJ L 285/10.

[3] COM(2015) 614, p. 4. See also: European Commission, Communication Ecodesign Working Plan 2016-2019, COM(2016) 773.

[4] European Commission, *Annex to the Communication Closing the loop – An EU action plan for the Circular Economy*, COM(2015) 614, p. 2; and COM(2015) 614, p. 4. The quotation has not been further explained whatsoever.

automatically emphasized more, because the currently applicable Ecodesign Framework Directive does not yet regulate wooden products at all.

While this idea to mainstream ecodesign sounds appealing, it could also cause exactly what the regulatory framework for a Circular Economy should not be: an incoherent framework. It is therefore essential to know whether the 'new' Ecodesign Framework Directive would overlap with other legislation and/or would counteract them.[5] After all, several EU laws can in principle cover the same life-cycle stage, product, material, risk or impact.[6] This mapping exercise is thus to analyze whether the Ecodesign framework would facilitate regulatory fragmentation if it were to be opened up to all products, which, in turn, could enhance incoherency in the regulatory framework. In this respect, this study is symptomatic for the overall regulatory framework for the Circular Economy and could therefore fulfil an explorative function for the Circular Economy transition.

[5] Such a survey is also the responsibility of the Commission according to Recital (35) EFD, and, indeed, this question of coherency is also included in the criteria laid down in the first subsection of Article 15(2)(c) EFD (Article 15 EFD contains criteria which should be met to adopt an Implementing Measure).

[6] For example, it could be demonstrated that an ecodesign requirement on sustainably sourced wood or on product durability is superfluous, or, alternatively, that the Ecodesign framework has a reinforcing effect on other laws. The study includes amongst others: the Biocidal Products Regulation, the Ecolabel Regulation/framework, the Public Procurement Directive/Green Public Procurement framework, the Construction Products Regulation and the Waste Framework Directive.

Cascading use of wood in Germany: Proposals for a reform of the legal framework

Dr. Grit Ludwig, Helmholtz Centre for Environmental Research, Leipzig (Germany)

Subtheme 4: Raw materials and waste management

Bioeconomy strategies on national and European levels foster the substitution of fossil and mineral ressources by bio-based raw materials. In order to contribute to solve the big ecologic and economic challenges of the future, sustainability within the bioeconomy needs to be guaranteed. Therefore the closing of material cycles by the recovery of residues and cascading use forms part of bioeconomy strategies. Cascading use means a repeated material use before a final energy use, and it increases resources productivity. As a renewable feedstock for the bioeconomy, wood plays a significant role.

In my presentation, I will first define “cascading use” and give an overview of the current situation of the utilization of forest wood and waste wood for material and energy uses in Germany. Then I will describe the legal framework for cascading use of wood in Germany. First to mention is the circular economy law, namely the rules which refer to the collection, transport, recovery and disposal of waste wood. These are the waste hierarchy, the German Waste Wood Ordinance, rules on separate collection, recycling quotas, rules on end-of-waste as well as on product responsibility. Besides of the circular economy law, other fields of law have an impact on the utilization of wood, either for material or for energy use. I will analyse the Renewable Energy Law which promotes the application of forest wood and waste wood for energy uses. A third field of law which is interesting in this context is the law for timber construction. The more forest wood is being used in wood products, the more post-consumer wood is available for a repeated material use. Because of the applied quantities, timber construction is most important in this regard. Therefore, the legal framework for timber construction will also be examined.

The presentation will end with recommendations for amendments in the legal framework:

- The German Waste Wood Ordinance needs a revision. The ordinance has not been amended significantly since 2002. It needs to be adjusted to the waste hierarchy of the EU Waste Framework Directive 2008 and to technological innovations.
- The competition between material and energy uses for both, forest wood and waste wood should be further reduced.
- Modern timber construction should be promoted by the German government. Market support programmes raise awareness and help to overcome disadvantages of timber construction compared to conventional construction. Those disadvantages namely exist in building law and building product law etc.

Dr. Grit Ludwig – short C.V.

- Senior scientist at Helmholtz Centre for Environmental Research − UFZ , Department of Environmental and Planning Law in Leipzig, Germany since 2008.
- Dr. juris degree in 2005, thesis on the application of the EU-Fauna-Flora-Habitat Directive in the German Mining Law.
- Between 2005 – 2007: Adviser of Organizations of Civil Society in Nampula, Mozambique
- **Fields of research:** all aspects of law in environmentally relevant areas, focusing on Mining Law in Germany and Circular Economy Law

Manure: from resource to waste and back to resource?

Dr. Andrea Keessen, Utrecht University

Manure is an important resource in agriculture because it feeds the plants which then provide feed to the animals. This closed cycle is disrupted by artificial fertilizer, which enabled the import of feed from abroad creating a huge virtual manure heap in Europe. As fertilizers are applied, most nutrients disappear in the soil polluting ground waters and adjacent surface water bodies causing these nutrient losses to pile up in the aquatic environment. Eutrophication and dead zones are the visible signs of excess manure application. Since the nineties the EU has tried to manage this through the Nitrates Directive, assisted by the 2000/60 Water Framework Directive to stem the worst effects of the disruption. Yet without measures to close the cycle, the manure heap will not go away.

Since the qualification of manure as waste is still controversial, my contribution first focuses on the legal aspects of the shifting legal status of manure as a resource (a byproduct) and as a waste substance (application of the Brady criteria). After this clarification of the legal status, the analysis proceeds with the options to achieve a low tech – organic – solution or a high tech – manure treatment – solution at the European regional level to close the cycle.

Session II.E

Biography

K.J. (Kars Jan) de Graaf is associate professor with a chair in Public Law and Sustainability at the Department of Constitutional law, Administrative Law and Public Administration, University of Groningen (The Netherlands), and managing editor of the Review of European Administrative Law journal (REALaw). www.rug.nl/staff/k.j.de.graaf

Prof. Dr. Wolfgang Köck, Helmholtz Centre for Environmental Research – UFZ, Leipzig

Title of presentation: Demand assessments in German infrastructure law as an instrument for strengthening environmental protection – German experiences and a scope for improving

Cross-cutting theme: Ecological sustainability – fundamental questions and implications for environmental law and governance

Abstract: Infrastructure projects in Germany are generally subject to an administrative assessment of 'demand' (Bedarfsprüfung). In the case of major infrastructure projects like roads, railways, waterways, airports and electricity transmission lines, this demand-assessment is often the first step within a multi-stage planning process. The demand-assessment identifies and evaluates the existing need for the respective development, the alternative options to meet those needs, and the effects of such options. Such assessments have a decidedly political character; the determination of demand is thus often not performed at the administrative level, but at the policy-making level.

Both the development and modification of infrastructure is highly significant to the environment. Demand-assessment thus provides an opportunity to link the determination of development needs with the exigencies of environmental protection at a very early stage in the process.

A current study of the Helmholtz Centre for Environmental Research on behalf of the Federal Environmental Agency investigates the statutory configuration of demand-assessment in relation to infrastructure planning and explores the conceptual and legal fundaments. The study considers, in particular, the question of whether environmental aspects are addressed suitably in the existing demand assessment schemes, and the question of how infrastructure-demand-procedures needs to be configured in order to give greater weight to environmental protection in that initial planning stage. For that purpose, we have developed a set of specifications for environmentally sound demand planning.

Among the study's findings are the following: the configuration of demand assessment varies widely across the various fields of infrastructure law; in the major infrastructure planning procedures for federal transport infrastructure and electricity transmission lines there is already timely consideration of environmental aspects due to the Strategic Environmental Assessments that must be conducted in the course of those procedures; and the new preparatory planning law for electricity transmission lines that was recently adopted in Germany is exemplary in many respects because it establishes clear statutory goals for demand assessment and also guides the determination of infrastructure demands through scenario formulation. Nonetheless, on the basis ofa standard set of specifications for environmentally sound demand planning that we have proposed, the study also identifies distinct scope for improving the currently established assessment procedures for the sake of more effective environmental protection. Room for improvement exists in relation to both the general specifications for demand assessments and the particular specifications concerning: environmental quality and other objects of legal protection; forecasting; up-to-dateness and checks.

The concept of due demand assessment appears to be extremely important in terms of sustainable development also in a global perspective and the German experience is only presented as an example. Moreover, there are close links to EU-law, especially to the European water law and the nature protection law: For instance,if water quality aims or protected habitats are affected by projects the Water Framework Directive and the Habitats Directive respectively require Member

States to show that the projects are demanded by overriding public interests and that no reasonable alternatives exist.

Biography: Prof. Dr. Wolfgang Köck, studies the law at the university of Bremen; phd-thesis and habilitation at university of Bremen (Prof. Dr. Gerd Winter); fellow at the centre for interdisziplinary research (University of Bielefeld)

Current position: Head of the Department of Environmental and Planning Law at Helmholtz Centre for Environmental Research – UFZ, Leipzig; Professor for Environmental Law at the Law Faculty, University of Leipzig; Chairman of the Scientific Council at Helmholtz Centre for Environmental Research; Editor in charge “Zeitschrift für Umweltrecht” (ZUR) (monthly journal); Editorial Board “Journal for European Environmental and Planning Law (JEEPL)

ENVIRONMENTAL PROTECTION AND POLICIES OF SOCIAL COHESION.

A NEW ROLE FOR THE ITALIAN METROPOLITAN CITIES

Anna Silvia Bruno

(Assistant professor in public law, University of Perugia, Italy)

(cross-cutting theme:Ecological sustain<ability – fundamental questions and implications for environmental law and governance; Subthemes: Biodiversity and Nature Management)

The recent establishment of the Italian metropolitan cities (Law n.56/2014) has opened a new chapter in the history of local authorities in Italy. As already happened in various European areas, they represent a system of government with a wide territorial range that created a unified governance of a large urban center and the neighboring municipalities (linked to the large urban center through the use of services). The Italian law n.56/2014 seems to require, in accordance with the European framework, new forms of local interaction, a new governance for the future sustainability that takes into account changes on the territory, possible socio-environmental conflicts, a new balance between nature and human structures, a new relationship between the local environment and social rights. In this perspective, matters like “environment” are at the crossroad of the local competencies and the metropolitan cities are responsible for the institutional relations at their own local level and for those (institutional relations) with the European metropolitan cities. From this point, new complicated questions and implications involve the (Italian) governance at the local level with a specific reference to matters like “environment” (in a large sense): for example, can categories such as "sustainable development", "precautionary principle", "proportionality" sustain effective responses to local needs? Can the democratic method, with its principle of consensus, offer the best procedures in terms of efficiency and speed in consideration of the ecosystem changes? … Elsewhere (like in the United States) these questions represent new frontiers to discuss and analyze limits and contradictions of federalism in that country (re-elaborating the catastrophic events of recent years like the hurricane "Katrina").

In the Italian institutional history, for the first time, there is the concrete need to overcome a legal territorial configurationdivided into local institutions (municipality, province, region) where the aim is to take into account groups of interests,starting from the needs of people to identify the territorial limits of a specific entity and not from the traditional division of the entities themselves. The law gives large powers to the statutes that every metropolitan city has adopted, introducing a very innovative discipline.

Anna Silvia Bruno is actually Assistant Professor in Public Law, University of Perugia, Italy. She was Adjunct Professor in European Legal Traditions (UniSalento, Italy), Visiting Research Scholar at the Benjamin Cardozo School of Law – Yeshiva University, New York (USA), Visiting Research Scholar at the UNISINOS and UNISC (Brazil); Visiting Research Scholar at the UNISINOS and UNISC (Brazil). She was selected for several national and international fellowships: Research Fellow – Young Guest and Doctoral Researches' at the University of Oslo (Norway); Research Fellow at the Fordham University School of Law, New York; visiting scholar at the Department of Law, University of Umeå, Sweden and at the University of Dublin (Ireland). Speaker in various national and international Conferences. She has national and international teaching experience; is author of more than 50 publications.

THE CUMULATIVE ASSESSMENT UNDER ART. 6 (3) OF THE HABITATS DIRECTIVE AS AN ALLOCATION PROBLEM

Subtheme: Biodiversity and Nature Management

The Habitats Directive[1] is an important measure for the protection of biodiversity in the European Union. However, even 25 years after the Habitats Directive was first adopted in 1992, there is still uncertainty in regards to the application of some of the directive's provisions in Germany. For instance, the cumulative effects assessment under Art. 6 (3) of the Habitats Directive ("in combination with other plans or projects") still causes issues, particularly, if multiple projects or plans apply for permission almost simultaneously. In these situations, a single project or plan may be permissible, but altogether the cumulative effects of the projects would exceed the threshold of significance laid down in Art. 6 (3). Consequently, the question arises, which project, if any, should be granted permission. That demonstrates the dilemma hidden behind the cumulative effects assessment under Art. 6 (3): An allocation problem that calls for foreseeable and fair procedural answers. I will focus on this issue by following three theses:

1st thesis: The Cumulative Assessment under Art. 6 (3) causes Allocation Problems

From an economist's point of view, the environment is a scarce commodity due to various reasons[2]: For instance, one reason is the natural limitation of certain non-renewable resources, such as coal or oil[3]. Other reasons may be artificial, such as the creation of CO2 certificate market[4]. Economically, the Habitats Directive also has a comparable impact on the economic assessment of environment. By establishing an European protected areas network (Natura2000) and developing conservation objectives for each habitat, the Habitats Directive reduces the commodity "environment" and causes competitive situations for project developers. This becomes especially evident when assessing cumulative effects pursuant to Art. 6 (3).

2nd thesis: Allocation Problems may not be solved by Priority only

German courts show the tendency of resolving these allocation problems according to the principle of priority[5]. Thus, the first project developer that submits to the competent authority the relevant documents will be granted permission.

It is questionable whether the time of submission should be the only criterion. Doubts may be raised particularly from a fundamental rights perspective. The project developer that is granted permission is able to exercise its rights (such as Art. 15 or Art. 17 of the EU Charter of Fundamental Rights) to

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[1] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, OJ 1992 L 206/7, lastly amended by Council Directive 2013/17/EU of 13 May 2013 adapting certain directives in the field of environment, by reason of the accession of the Republic of Croatia, OJ 2013 L 158/193.

[2] *H. Siebert*, Economics of the Environment, 7th ed, 2008, p. 3 et seq.

[3] *S. Hackett*, Environmental and Natural Resources Economics: Theory, Policy and the Sustainable Society, 4th ed., 2011, p. 80.

[4] *M. Oyevaar/D. Vazquez-Brust/H. v. Bommel*, Globalization and Sustainable Development: A Business Perspective, pp. 144-145.

[5] Higher Administrative Court of North Rhine-Westphalia, Decision of 1 December 2011 (Case 8 D 58/08.AK1.12.2011), ECLI:DE:OVGNRW:2011:1201.8D58.08AK.00, paras. 713-715.

their fullest extent, whereas other project developers are entirely prevented from exercising their rights. This may contradict the principle of proportionality.

3rd thesis: The Principle of Mutual Consideration as the Solution

Therefore, these allocation problems must be approached differently. A promising solution could be the principle of mutual consideration[6] which specifies the principle of proportionality. According to the principle of mutual consideration, the competent authorities are required to take into consideration judgmental elements before deciding on which project or plan should be granted permission. These judgmental elements might be the specific impact, the benefits for the general public or the public's acceptance of each project.

[6] The principle of mutual consideration (*Gebot der wechelseitigen Rücksichtnahme*) has been developed in the German Clean Air Law and provides for solutions regarding competing applicants for industrial plants. See for an introduction *O. Reidt*, Deutsches Verwaltungsblatt (5) 2009, pp. 274 et seq.

Biography: Jens Weuthen

My name is Jens Weuthen and I am 28 years old. I studied law at the *Westfälische Wilhelms-Universität* in Münster (Germany) from 2009 to 2015. After my law studies, I began to work as a research assistant at the Institute of Environmental and Planning Law at the *Westfälische Wilhelms-Universität* in Münster which is run by the institute's director Prof. Dr. Sabine Schlacke. My work mainly focusses on nature conservation law and, in particular, the European Union's Habitats Directive. Currently, I am writing my PhD thesis which deals with the issues arising from the cumulative impact assessment under Art. 6 (3) of the Habitats Directive. Prof. Dr. Sabine Schlacke is supervising and supporting my PhD thesis. By the time, the EELF takes place, my research will be finished for the most part. Accordingly, I would like to present the main results of my research at the EELF.

Session III.A

Doctor of Social Sciences (DSSc)
Tanja Joona, senior researcher
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Abstract for the Conference: ANNUAL EELF CONFERENCE 2017 - COPENHAGEN
SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – LEGAL APPROACHES & INSTRUMENTS
30. AUGUST – 1. SEPTEMBER 2017 COPENHAGEN, DENMARK

For the theme: 5) Ecological sustainability – fundamental questions and implications for environmental law and governance

Indigenous peoples right to natural and mineral resources – reflections from the ILO 169

Arctic energy development has considerable effects on the areas future, but also globally the growing need for new resources is forcing to explore new territories. At the same time, the Arctic is largely inhabited by indigenous peoples and has special environmental vulnerabilities that can contribute to impacts on Arctic indigenous peoples. Norms of consultation with indigenous peoples thus have a particular importance in Arctic contexts.

Arctic countries like Norway and Denmark have ratified the International Labour Convention (ILO) No. 169 concerning the rights of indigenous peoples. Finland is considering the ratification while its neighbouring country Sweden seems to have dropped the idea, for now at least. The main challenge is related to land rights, especially the ownership and possession of traditionally occupied lands. However, more contemporary issue seems to be the exploration and exploitation of natural and mineral resources for the growing needs of global markets. This is often made in areas where ownership questions are unresolved or that are used for the purposes of traditional livelihoods.

Within this context it is interesting to examine what does ILO Convention No.169 say about indigenous peoples' right to natural and mineral resources? Or how indigenous peoples and traditional livelihoods are protected when natural resources are being exploited anyway? Is there any controversies between international and domestic laws?

The ILO Convention No. 169 states that exploitation of natural resources should not take place in indigenous territories without their prior, free and informed consent. They have the right to a fair share of the benefits from such activities in their lands, and the right to just and fair compensation. These rights should be settled through appropriate negotiations and proper agreements with the indigenous peoples concerned.

The presentation deals with concepts such as *consultation* and *participation*, *appropriate procedures* etc. in the context of ILO 169. Few examples of challenging situations are also given from Finnish Lapland where indigenous peoples are practicing reindeer herding and try to fight for its survival under the pressure of mining industry. And of course, ILO 169 has not been ratified, yet.

Keywords: Natural resources, indigenous peoples, traditional livelihoods, reindeer herding, ILO Convention No. 169, environmental rights, participation

BIO: Biography: Doctor of Social Sciences, Tanja Joona is working as a senior researcher at the Arctic Centre of the University of Lapland. Joona's main research interests focus on comparative legal and political aspects of Sámi society and especially issues dealing with traditional livelihoods, international human rights law and identity questions. Her PhD dealt with the implementation of ILO 169 and land use questions in the Nordic countries. Currently she is working in a project on Sámi children and youth in urban cities funded by the Norwegian Research Council. She has several positions of trust at the University of Lapland, e.g. member of the Arctic Centre Board. She is also the Chair of the Doctoral Programme Communities and Changing Work.

Nana Harbo
BSS, Department of Law
Aarhus University

How can EU play a role in protecting the ecosystems in the Arctic?

Abstract for EELF Conference 2017

Abstract

Climate change allows for future extraction of minerals and hydrocarbons in the sea around Greenland, which has not previously been available. This represent an opportunity for a highly needed development of the Greenlandic economy, but it also entails potential serious risks to the environment and the local people, including the small local fishing and hunting communities. Greenland is characterized by its very vulnerable Arctic environment, a small scattered population, a non-existing infrastructure and a young self-government.

In my contribution, I will focus on the role of EU in protecting the fragile ecosystems in the Arctic - primarily Greenland. I 2009, the competence in relation to hydrocarbon and mineral extraction was taken over by the Greenlandic authorities; however protecting the marine environment beyond three nautical miles is still mainly the responsibility of authorities of Denmark – this includes the international and internal obligations on emergency response planning and emergency preparedness and response.

Despite being a part of the Danish Kingdom, Greenland is not a member of EU. The international legal and policy regimes covering the Greenlandic/Danish marine territorial area are first and foremost the UN Convention on the Law of the Sea (UNCLOS), the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR), the Biodiversity Convention and the conventions developed under the auspieces of the International Maritime Organization (IMO). Thus, the governance of the Greenlandic/Danish marine area is characterized by overlapping multi-level legal regimes. EU is also party to UNCLOS, OSPAR and the Biodiversity Convention, and in the implementation of these conventions, the EU has taken a much more ecosystem and holistic focused approach compared to the Danish implementation.

The question to be considered in this contribution is: *how can the EU's extraterritorial application of its ecosystem based implementation of the obligations to protect the marine environment according to these international instruments be justified?*

In the attempt to provide an answer for this question, the topic will be analyzed in the perspective of the 'theory of socio-ecological resilience'. Resilience can be explained as an approach to evaluate a systems resilience to absorb stress and changes and still maintain its structure and function. In an environmental context, resilience research focus on socio-ecological systems ability to resist impacts on the external environment and maintain its function as the basis for the societies that depends on its services. Such changes can be in form of certain and unexpected shocks like environmental accidents or as gradual and cumulative changes over time, such as climate change. The object of such evaluation may include the legal instruments used to ensure cross-border (horizontal and vertical) coordination and thereby contribute to resilience of the social as well as the ecological absorption of abrupt stress and changes. For the purpose of answering the above question, the resilience theory thus provides for an approach to analyze the interplay and effectiveness of the multi-level legal regimes that govern the Greenlandic/Danish marine area.

Subtheme: the topic is intended to relate to subtheme 5 of "Ecological sustainability – fundamental questions and implications for environmental law and governance".

Nana Harbo
BSS, Department of Law
Aarhus University

Biography

Nana Harbo is a PhD Fellow at Aarhus University, BSS/Department of Law. In her research, she focuses on the legal instruments used in Greenland and in the maritime area surrounding Greenland in relation to the prevention of and responsibility for the potentially irreversible damage that may be caused due to offshore oil and gas extraction and coastal mining operations.

Nana Harbo has a master of law degree from Aarhus University. In addition, she holds a master degree (LL.M) in Chinese and International Law from China University of Political Science and Law in Beijing, where she specialized in Chinese environmental law. Prior to her enrollment as PhD Fellow in Aarhus, Nana has work several years as environmental manager for Danish agriculture projects in China.

LEGAL PROBLEMS OF RESTORATION OF THE DISTURBED AREAS IN THE ARCTIC ZONE OF THE RUSSIAN FEDERATION

Subtheme: «Ecological sustainability»

Kodolova Alena,
PhD, senior researcher, Saint Petersburg scientific research center for environmental safety
Russian Academy of Science

Alexander Solntsev,
PhD, associate Professor, Deputy Head of the Department of International Law,
People's Friendship University of Russia (RUDN University)

ABSTRACT.

The Arctic zone of the Russian Federation is characterized by extreme climatic conditions, the presence of a variety of mineral and other natural resources, the concentration of industrial facilities, extreme vulnerability of ecosystems. During the Cold War in the Arctic nuclear fleet, built airfields, military bases with residential towns, defense points with powerful radars, tropospheric radio relay stations were created, as well as lubricants warehouses and others were established. The specific features of the region determine the need for regulating the Arctic zone as a separate object of public policy.

The problem of the past (accumulated) environmental damage was reflected in the Strategy of the Russian Federation for the development of the Arctic zone and ensuring the national security for the period until 2020 (Strategy 2013); State Program "Socio-economic development of the Russian Arctic for the period until 2020" (Government Decree № 366 of 21.04.2014) (State Program 2014); Russian State Standard (GOST) R 54003-2010 "Environmental Management. Evaluation of past accumulated in the locations of the organizations environmental damage".

Despite the high relevance of the elimination of the last (cumulative) environmental damage in the Arctic zone, the problem is not fully regulated by the existing legislation. It requires changes in the Russian environmental legislation. The first changes have already been made. The Federal Law of 10.01.2002 N 7-FZ "On Environmental Protection" was amended by Federal Law of 3.07.2016 N 254-FZ, and will enter into force on 01.01.2017. As of today, implementing mechanism of the provisions on elimination of the past (cumulative) environmental damage is not completely defined, as no regulatory acts have been enacted, which will identify the criteria of the scope of negative impact necessary for taking measures on elimination of damage; no requirements have been set forth on the form of the report or materials on the results of assessment of the accumulated damage; no procedure of inventorying or inspecting the object of the past (cumulative) environmental damage has been established. What is more, the legal act itself has some flaws related to wrong wordings of the terms used and to laying most costs on elimination of the past (cumulative) damage on municipal entities, whose budgets often lack such financial resources.

In determining the legal nature of the elimination of the past (cumulative) environmental damage it is necessary to note public-legal nature of these relations. Elimination of damage of the past is not attributed to any kind of legal liability, since it is applicable in the absence of the perpetrator, who caused damage, and is in fact representing a kind of measures to protect the environment.

MAIN THESES:

- Recovery of ecosystems, ecological restoration, elimination of past (accumulated) environmental damage – main problems of current environmental law;
- Arctic zone – extremely vulnerable of ecosystem, recovery of ecosystems in Arctic is critical for human well-being;
- Elimination of past (accumulated) environmental damage in Arctic requires changes in the Russian environmental legislation and practical realization of new environmental legislation, Strategy 2013, State Program 2014, Russian State Standard (GOST) R 54003-2010.

Kodolova Alena
PhD, senior researcher, Saint Petersburg scientific research center for environmental safety
Russian Academy of Science

Specialization: Environmental Law, International Environmental Law, Civil Law, Safety Law
PhD dissertation on the theme: «Civil-legal regime of environmentally dangerous objects». The author of more than 100 papers.
Significant publications or papers:

- Kodolova A.V. «Mass environmental torts in the Russian Federation and foreign countries»// Business and law journal, 2009, No. 6. P. 52-58.
- Kodolova A.V. «The Federal law comment «Industrial safety of dangerous objects» - http://www.consultant.ru/, 2010.
- Kodolova A.V. Legal regulation problems of past environmental damage // Modern law. 2014. № 7. P. 27-31.
- Begak M.V., Kodolova A.V., Pavlova M.V. Institute of environmental safety in law// National safety journal / nota bene. 2016. № 3. P 309-318.

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Alexander Solntsev

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A. M. Solntsev received a Bachelor's degree and Master`s degree in International Law from the RUDN-University. In 2008 defended his PhD dissertation on the theme: «The role of international judicial institutions in the settlement of the international environmental disputes».

Internships: University of Amsterdam (University van Amsterdam, Law School, 2001- 2002); Office of the High Commissioner for Human Rights of the United Nations (Geneva, March 2012); Academy of Human Rights in Venice (July 2013).

He is author of more than 350 papers (monographs, textbooks, manuals, research papers, reviews, etc). The most significant of them are: Solntsev A.M. Environment and human rights. 2nd ed. Moscow,2015; Solntsev A.M. «Case law on International Environmental Law». Workbook. - M.: PFUR, 2011 - 159 pp. He initiated the project of publishing the International Environmental agreements with comments (4 volumes already).

Session III.B

Jan Darpö
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2017-03-16

Protection of Species in Environmental Decision-making - An interdisciplinary research project on the integration of scientific evidence in administrative and judicial procedures (PROSPEC)

Abstract

Environmental law must deal with technical and natural science knowledge and risk assessment in the evaluation of the impact of human activities upon the environment. Legal criteria often include concepts such as "the continued ecological functionality of breeding sites", "significant effect on the environment" or "favourable conservation status", all relating to natural science factors. Accordingly, one must be able to manage scientific knowledge and uncertainty at various stages of decision-making procedures, from the first level of the administration to the courts. In order to investigate how this task is performed in the Swedish administration and environmental courts, we – that is legal scholars at the Faculty of Law at Uppsala Universitet and ecologists at the Centre for Species Information at the Swedish University of Agricultural Sciences – have launches the research program PROSPEC. The program concerns the use of natural science knowledge in cases concerning **land-use and species protection**, focusing on two scenarios; **permits for wind farms and forestry**. It aims at analysing how scientific knowledge is implemented in procedures and reflected in the decisions. We will study the processes by which the environmental decisions are reached, including the involvement of the public, the interaction of different types of specialist knowledge and how well the administration and the courts are equipped to decide on complex technical issues. From this material, we will draw conclusions on how best to ensure that the processes incorporate necessary scientific considerations, including mechanisms for the involvement of the public. Also, we shall suggest common standards, to be considered reflective of "good governance" within environmental decision-making in relation to species protection.

In this presentation, I will begin with giving a short description of the Swedish system for administrative decision-making and judicial review in the environmental courts. Thereafter, I will focus on some research questions raised in the beginning of the program concerning species protection in permit procedures on wind farms, namely:

- What ecological criteria for the impact on relevant species – for example slow flying birds and bats – can be used for the evaluation of the nature scientific information used in the decision-making procedures..?
- What role have the different actors in providing information in the processes leading up to the decisions; the administration and its experts, remitted expert bodies, the public and the public concerned (including the ENGOs), the courts and their experts (technical judges)..? Closely related to this question is in what way has the information developed from the first decision to the last instance in a reformatory procedure..?
- How can we – legal scholars and ecologists in cooperation – evaluate the quality of the decision-making processes, meaning their effectiveness in assessing the impact on the relevant species..?

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Jan Darpö is a professor of environmental law at the Faculty of Law, Uppsala Universitet. He graduated from the law school there in 1991, and served thereafter as law clerk and lecturer before beginning doctoral studies. After receiving his doctor degree, he served as an adjunct member of the Environmental Court of Appeal 2001-2004. Returning to Uppsala, his research has focused on remediation of contaminated land, environmental procedure, permit regimes, nature conservation and species protection. He has been visiting fellow at the Law School at the University of Minnesota (2008) and University of New South Wales in Sydney (2012). Since 2008, he is the chair of the Task Force on Access to Justice under the Aarhus Convention. He has also worked as a lead consultant to the European Commission and evaluator for several international research institutes. Jan Darpö is a member of the Avosetta group of European environmental law professors.

Fra:	Tilak Ginige
Til:	Linda Andersen; Alice Webb (i7245046)
Cc:	Tilak Ginige; Merve Demir (i7446274)
Emne:	Abstract for the EELF conference 2017
Dato:	16. marts 2017 18:04:02

Dear Linda Andersen,

Please find below our Abstract for the EELF conference 2017 and personal information.

Title:

Are EU and UK nature conservation policy and legislation effectively regulating species reintroduction attempts?

Abstract:

Globally species reintroductions are used increasingly to try and reduce the stress on remaining populations of endangered species or to re-establish species that have gone extinct areas due to human impacts. However often these attempts fail to establish a working population of individuals that are able to survive without human intervention. In this research the aspects that could affect species reintroductions are investigated to try and understand how they can be made more successful. The issues considered include taxonomic group, time of reintroduction, where the reintroduction took place (continent), number of individuals released, length of post-release monitoring and use of experimentation and modelling. The work conducted demonstrates that Asia had the highest success rates and Europe had the highest rate of failures. Species reintroductions have become more successful over time, longer monitoring lengths increased success rates and where modelling and experimentation are utilised success increases.

The number of reintroductions found and success rates varied a lot across taxonomic groups. Mammals and birds unsurprisingly had the most reintroduction attempts and birds had the highest number of failures. This research highlights the gaps in International, European and UK nature conservation policy and legislation to effectively regulate species reintroduction attempts.

Sub theme: Biodiversity and Nature Management

Personal Information:

Alice Webb is a researcher in the Environment & Threats Strategic Research Group at Bournemouth University's Faculty of Science & Technology in the Department of Life and Environmental Sciences. She is an ecologist whose research interest include Species Reintroductions and biodiversity conservation policy. She has in the past worked with Greensand Trust and The Wildlife Trust of Bedfordshire, Cambridgeshire and Northamptonshire working on projects such as heathland habitat creation.

Tilak Ginige is a Senior Lecturer in Environmental Law at Bournemouth University's Faculty of Science & Technology. His research interests include Renewable Energy, Mining Waste, Water Framework Directive, Environmental Liability and Sustainable Development Law. He is a member of the Nordic Environmental Law, Governance and Science Network, the European Environmental Law Forum and the UK Environmental Law Association and he is a Fellow of the Royal Geographic Society. His research into the Aznalcóllar Tailings Pond Failure in Andalucía, Spain in 2002 was instrumental in the creation of the Directive 2006/21/EC on the Management of Waste from the Extractive Industries (the Mining Waste Directive). The multidisciplinary article he co-authored with Ann Thornton and Frazer Ball 'The Severn tidal barrage project: a legal paradox?', was cited in the House of Commons Energy and Climate Change Committee, 2013. A Severn Barrage?

Merve Demir is a researcher in the Environment & Threats Strategic Research Group at Bournemouth University's Faculty of Science & Technology in the Department of Law.

Regards

Tilak

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Legal development to manage established invasive alien plants – Case studies on water primrose in Japan, France and UK-

(Related subtheme: Biodiversity and Nature Management)

Invasive alien species (IAS) are one of the major threat to biodiversity. Especially, freshwater ecosystems are vulnerable to IAS. There have been many papers on technical and biological dimension to manage established alien plants, however study on legal dimension to manage established alien plants is not well developed. We chose water primrose management legislation as an object of case studies. It is Latin America origin amphibian plant with beautiful yellow flowers. It has been causing serious problems in Europe, Japan and other areas, and has become the top priority IAS in several countries. EU also designated it to "the initial list of invasive alien species of Union concern pursuant to Article 4 (1) of Regulation (EU) No 1143/2014".

In order to consider effective legislations to control water primrose, we have carried out case studies in Japan, France and UK, reviewing public documents, interviewing experts and visiting control sites. France has the longest history of invasion since 1820's. UK has recorded 30 sites since 1998 and has eradicated them in 10 sites. Japan has suffering invasion in its largest lake, Lake Biwa, since 2009.

We found two points. First, all three countries have introduced prohibition of trading, holding, cultivation and releasing. France designated water primrose in 2007, to prohibit trading, holding and cultivation. In 2010, UK designated it to prohibit releasing to wild, and in 2014, designated it to prohibit trading, holding and cultivation. Japan also designated it in 2014 to prohibit trading, holding, cultivating and releasing.

Second, only UK has obliged landowners, freeholder and leaseholders to manage IAS in their premises. In addition, UK introduced two new legislation in 2015. One is Species Control Order concerning nationally concerned IAS and another is Community Protection Notice concerning widely spread IAS, both oblige land owners and others to manage IAS in their properties. Off course, UK government provides financial assistance and technical advice to management actions. The Japanese legislation on IAS management of 2004 does not stipulate

who should carry out on-site control projects. So local governments have broad discretion whether they should control IAS or not in rivers, ponds and lakes which they are managing, and municipal governments often lack knowledge and financial resources to manage IAS in their managing areas. The Shiga Prefectural Government, which is managing Lake Biwa, formulated the consultative group to manage IAS plants around Lake Biwa with municipal governments, NGOs and researchers. The consultative group has been carrying out control projects against IAS plants even in the areas which are under management authority of municipal governments. This fiction named the consultative group has avoided jurisdiction problems among local governments. France also does not have any legal framework concerning on-site control projects. So managers of rivers and regional natural parks in France have done on-site control projects on a voluntary basis, and this has made them difficult to secure financial resources.

Biography

Kenji KAMIGAWARA
Doctor of Environmental Studies
Professor, School of Environmental Policy and Planning,
Department of Environmental Science,
University of Shiga Prefecture

1960: Born in Japan

1984: Graduated from Faculty of Law, Tohoku University
Entered the Environment Agency of the Government of Japan

1990-1993: Seconded to the Office of Global Environment, Ministry of Foreign Affairs

1995-1998: First Secretary, the Mission of Japan to the international organizations in Geneva

2000-2002: Secretary to the Minister of the Environment

2008-2011: Professor, Graduate School of Global Environmental Studies, Sophia University

2011-2013: Director of Policy Coordination Division of Nature Conservation Bureau, the Ministry of the Environment

2013- : Professor, School of Environmental Policy and Planning, Department of Environmental Science, University of Shiga Prefecture

2015- : Member of EELF

Session III.C

Biography

Marjan Peeters is Extraordinary Professor of Environmental Policy and Law at Maastricht University. She defended in 1992 her PhD on emissions trading at Tilburg University, which was the first PhD in Europe providing a legal analysis of this market based instrument. From 1993 to 2001 she served as lawyer with the Dutch Ministry of Water Management and Transport. After having gained ample practical experience with permitting, enforcement and policy advice, she moved to Maastricht University.

Marjan has co-edited more than 6 books in the field of EU environmental and climate law. The latest book is *Climate Change Law* (Edward Elgar 2016, co-edited with Daniel A Farber) containing 56 chapters each devoted to a specific topic relevant for understanding climate law. At Maastricht University, Marjan leads several master and bachelor courses. Furthermore, Marjan is connected for one day a week to the International Centre for Integrated Assessment and Sustainable Development (ICIS) at Maastricht University.

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ABSTRACT SUBMISSION
SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES—
LEGAL APPROACHES AND INSTRUMENTS
30 August-1 September 2017

PRESENTER: Robin Kundis Craig, Ph.D., J.D.
James I. Farr Presidential Endowed Professor of Law
University of Utah S.J. Quinney College of Law, Salt Lake City, UT USA

BRIEF BIO: My research focuses on all things water, including interdisciplinary work on the governance of water resources in an era of climate change and the water-energy-food nexus. I am the author, co-author, or editor of 11 books, and I have published over 100 articles and book chapters on this and other subjects. I have served as a consultant on water issues to the government of Victoria, Australia; the Council on Environmental Cooperation in Montreal, Quebec, Canada; to the Environmental Defense Fund; and to the River Network's Nutrient Task Force. I have also served on five National Research Council committees on water management issues in the Mississippi River and Texas's Edwards Aquifer. This presentation stems from a four-year, interdisciplinary grant project on Adaptive Water Governance sponsored by the National Social-Ecological Synthesis Center in Annapolis, MD, with funding from the National Science Foundation.

CONFERENCE SUBTHEMES ADDRESSED IN PRESENTATION:

(1) Water Management
(5) Ecological Sustainability

TITLE OF PRESENTATION: <u>Climate Change and the Incorporation of Resilience Theory into Adaptive Water Governance</u>

ABSTRACT: "Adaptive water governance" describes the governance institutions that emerge in various water basins to cope with changing social and ecological conditions. Climate change is helping to propel the emergence of such institutions in many water basins across the United States and Australia, particularly when significant drought reduces water supplies from expected normal ranges. However, changing social conditions can also be important components in the emergence of new governance institutions. For example, in the Pacific Northwest regions of the United States, the re-invigoration of tribal sovereign and quantification of tribal water rights can change the political dynamics of water basin management. Finally, changing priorities for natural resources can also lead to the emergence of new governance institutions for water resource management. In the United States, for example, the federal Endangered Species Act has repeatedly served as a point of legal crisis that spurs the emergence of new water governance.

Because adaptive water governance most often emerges in response to change, and because climate change is now affecting most water basins in the world, resilience is often a key concept within the adapting water management and governance regimes. Working within the

framework of the Stockholm school of resilience theory, the Adaptive Water Governance grant researchers engaged in resilience assessments of six water basins in the United States and one in Australia, coalescing a framework for performing such assessments in the process. One important element that emerged from this work was the need for emerging adaptive governance institutions to conscientiously manage the need for increased flexibility in water management to deal with climate change and other ecological alterations—including the need in an increasing number of basins to accept and manage ecological transformations—while still maintaining sufficient stability to avoid social and economic upheaval. Our work emphasizes the importance of process in adaptive water governance, including the importance of the hard governance work necessary to properly incorporate resilience theory into law and politics. Specifically, new and emerging governance regimes cannot pursue the resilience of *everything* in a complex social-ecological system and instead must prioritize: The resilience *of* what *to* what and *for whom*?

This talk will present much of the work of the Adaptive Water Governance grant project, focusing on the need to and process of actively incorporating the insights of resilience theory into water management in a climate change era. It will focus on the Klamath River Basin that straddles the Oregon-California border in the United States, but the governance processes and options discussed are broadly applicable.

THESES:

(1) Water resources and demands on water resources are changing, both because of climate change and other social and political changes.

(2) Water governance and management need to become more flexible to accommodate the Anthropocene's reality of continual change, but without sacrificing all protectionist rigor.

(3) Properly implemented, resilience theory can both force articulation of the priorities for management and governance in water basins while also preparing communities and governance institutions for future transformation.

The Developing Atmospheric Trust Litigation in the United States: Climate Change and the Constitutional Obligation to Protect Natural Resources

Samvel Varvaštian
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Natural resources, including air, water, biodiversity, etc. are great examples of global public goods, which are constantly under threat by human economic activities. Pollution and contamination of these resources usually occur directly, for example via emissions of hazardous substances into the air from transport and industrial sources. At the same time, some pollutants, known as greenhouse gases (GHG), also damage natural resources indirectly, by contributing to the global climate change, which, in turn, threatens to deplete those resources and perhaps even leave the planet uninhabitable.

Since the impacts of pollution and climate change can be both local and global, the effective legal response to them should be of complex nature and occur on a multi-level scale. However, this is not always the case. In the United States (US), for instance, there has been no comprehensive climate change legislation, thus litigation has been used to fill the regulatory vacuum. This type of litigation has been used in various ways, for example by requesting the regulating bodies to introduce new air quality standards, or targeting specific individual GHG emissions sources – power plants, oil refineries, etc. More recently, climate plaintiffs have invoked constitutional provisions on human rights to natural resources, namely the right to a clean and healthy atmosphere, in an attempt to force the government to take more decisive mitigation measures.

The latter line of climate cases, also known as atmospheric trust litigation, is the result of a nationwide campaign, which has relied not on traditional legal instruments, such as air quality legislation or environmental impact assessment legislation, but on common law and constitutional provisions. In exploring this legal avenue, the plaintiffs have claimed that the planet's atmosphere is a natural resource – just like air, water and soil – thus its protection from dangerous GHG emissions is an essential obligation of the government. Such a position seems to be reinforced by the fact that some States' constitutions explicitly grant the right to natural resources, although the question remains whether such a right incorporates the right to a GHG emissions-free atmosphere.

The presentation is related to subthemes 3 (air quality management) and 5 (ecological sustainability – environmental law and governance). It will address the following questions:

- To what extent are the legal provisions on human rights to natural resources in the US climate cases explored?
- What are the fundamental limitations of this legal pathway?
- Can the experience of the US climate plaintiffs be transposed into European environment?

Samvel Varvaštian
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Recent publications

1. Samvel Varvaštian, Filling the Gap in the EU Air Quality Legislation: The Medium Combustion Plants Directive, (2017) *IUCN Academy of Environmental Law e-Journal* 8, forthcoming, IUCNAEL, ISSN 1929-6088
2. Samvel Varvaštian, Promoting Human Health and the Functioning of the Internal Market: The Reaffirmation of the Tobacco Products Directive's Key Objectives in Poland v Parliament and Council, Pillbox 38 and Philipp Morris Brands and Others, (2017) *European Public Law* 23(2), forthcoming, Kluwer Law International, ISSN 1354-3725
3. Samvel Varvaštian, 'Climate Change Litigation, Liability and Global Climate Governance – Can Judicial Policy-making Become a Game-changer?' (2016) *Conference paper*: 1-8, Free University of Berlin
4. Samvel Varvaštian, 'Environmental Liability Under Scrutiny: The Margins of Applying the EU 'Polluter Pays' Principle Against the Owners of the Polluted Land Who Did Not Contribute to the Pollution', (2015) *Environmental Law Review* 17(4): 270-276, Sage Publications, ISSN 1461-4529
5. Samvel Varvaštian, 'UK's Legalization of Mitochondrial Donation in IVF Treatment: A Challenge to the International Community or a Promotion of Life-Saving Medical Innovation to Be Followed by Others?', (2015) *European Journal of Health Law* 22(5): 405-425, Brill/Nijhoff, ISSN 0929-0273
6. Samvel Varvaštian, 'A Review of EU Regulation of Sports Nutrition: Same Game, Different Rules', (2015) *German Law Journal* 16(5): 1293-1315, Washington & Lee University School of Law, ISSN 2071-8322
7. Samvel Varvaštian, 'Achieving the EU Air Policy Objectives in Due Time: A Reality or a Hoax?', (2015) *European Energy and Environmental Law Review* 24(1): 2-11, Kluwer Law International, ISSN 0966-1646

Recent speeches at conferences

1. *Access to Justice in Climate Change Litigation from Transnational Perspective: The Standing of Private Parties and NGOs in Recent Climate Cases*, Annual European Environmental Law Forum Conference 'Procedural Environmental Rights: Principle X in Theory and Practice', September 14-16, 2016, European Environmental Law Forum/ Wrocław University, Wrocław, Poland
2. *Setting Specific Marketing Requirements for Emerging Medicinal Products and Medical Devices Incorporating Nanomaterials: Promoting Patient Safety or Hindering Development and Trade?*, 13th World Congress of the International Association of Bioethics, June 14-17, 2016, International Association of Bioethics/University of Edinburgh, Edinburgh, UK (supported by £340 grant from the University of Edinburgh)
3. *Climate Change Litigation, Liability and Global Climate Governance – Can Judicial Policy-making Become a Game-changer?*, Berlin Conference on Global Environmental Change 'Transformative Global Climate Governance après Paris', May 23-24, 2016, Free University of Berlin/German Development Institute, Berlin, Germany

ANNUAL EELF CONFERENCE 2017 - COPENHAGEN

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – LEGAL APPROACHES & INSTRUMENTS

Title

Notification and Prior Consultation Procedures in Mekong River Basin: How can the UNECE Conventions and UN Watercourse Convention be guidance in improving their procedural mechanism?

Subtheme of the Conference

1) Water Management

Abstract:

There has been an extensive increase in hydropower development projects in Mekong River Basin. Current issues on their transboundary impacts on the environment and citizens of the riparian States raise concerns over the adequacy of their practice and standard on the notification and consultation process, the EIA process and public participation. The purpose of this research is to find a way to improve and develop a better 'procedural mechanism' for the 1995 Mekong Agreement[1], the Procedures for Notification, Prior Consultation and Agreement (PNPCA)[2] and cooperation among riparian States by using international law and European legal instruments, such as the UN Watercourses Convention 1997[3], the UNECE Convention on Environmental Impact Assessment in a Transboundary Context 1991 (the Espoo Convention)[4], Rio Declaration[5], the Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1992 (the Helsinki Water Convention)[6] and the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters 1998 (the Aarhus Convention)[7] as guidance.

The comparative study will reveal the areas of law that align with international law and European law and the areas of law that are short of practice. It is important to point out that this research will not aim to create a new model or a new agreement for the Mekong Basin, but to highlight good and bad practices as well as identifying gaps in the

[1] Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin (The 1995 Mekong Agreement)
[2] Guidelines on Procedures for Notification, Prior Consultation and Agreement (PNPCA)
[3] Convention on the Law of the Non-navigational Uses of International Watercourses 1997 Adopted by the General Assembly of the United Nations on 27 May 1997, entered into force on 17 August2014. See General Assembly, fifty first Session, Supplement No 49 (A/51/49).
[4] UNECE Convention on Environmental Impact Assessment in a Transboundary Context 1991 , adopted in Espoo (Finland) on 25 February 1991 and entered into force on 10 September 1997
[5] Rio Declaration on Environment and Development 1992 (Rio Declaration) Rio de Janeiro (Brazil) on 14 June 1992
[6] UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes 1992, adopted in Helsinki (Sweden) on 17 March 1992 and entered into force on 6 October 1996
[7] UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters 1998, adopted in Aarhus (Denmark) on 25 June 1998 and entered into force on 30 October 2001

current law. This will allow recommendations for some amendments and reformation to be made to ensure the sustainable management of the transboundary watercourse.

The research intersects with many areas of law that will be useful to legal scholars, government officers, NGOs and students who are interested in environmental law, EU law, public law, human rights and god governance. It is also relevant to the theme of the conference on sustainable management of natural resources (water) where EU legal instruments i.e. the Espoo Convention and the Aarhus Convention are used in the comparative study and set as an example of good practice.

Keywords: Notification and Consultation, Transboundary EIA, Public Participation

Biography

I am a PhD law student under the Royal Thai Government Scholarship at Northumbria University under Professor Alistair Rieu-Clarke, (transferred with her supervisor from UNESCO Centre for Water Law, Policy and Science, Dundee). My areas of interest are water law, environmental law and public international law in general. My PhD research explores the procedural obligations in international environmental law relating to transboundary hydropower developments, with a particular focus on States practice and intersections between multiple legal regimes, their rights and obligations that relate to such projects.

2016-2019: PhD in Environmental Law, Northumbria University (transferred with Supervisor from Dundee)
2016: PhD UNESCO Centre for Water Law Policy and Science, University of Dundee
2009-2010: Barrister-at law, The Honourable Society of Gray's Inn (Inns of Court, School of Law
2006-2008: LLM in Law, the University of Sheffield
2003-2006: LLB (Hons), University of Wolverhampton

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Education

2016-2019: PhD in Environmental Law, Northumbria University (transferred with Supervisor from Dundee)

2016: PhD UNESCO Centre for Water Law Policy and Science, University of Dundee

2009-2010: Barrister-at law, The Honourable Society of Gray's Inn (Inns of Court, School of Law)

2006-2008: LLM in Commercial Law, the University of Sheffield

2003-2006: LLB (Hons), University of Wolverhampton

2001-2003: International Baccalaureate United World College of the American West, USA (United World Colleges Scholarship)

1999-2001: Thai Mattayom 4-5, Triamudomsuksa School Thailand

Language: English (Fluent), Thai (Fluent), French (Basic)

Work Experiences

- **Law Lecturer, Naresuan University (from 2011-present):** lecturing Basic Knowledge for Law Students and Alternative Disputed Resolution**s** (focusing on ICSID and ICC Arbitration); editing articles in the Journal of Law of the university; providing supports for internationalisation between Naresuan University and other universities in ASEAN; structuring exchange programmes and attending international conferences under the MOU with Yunnan University (China) and University of Malaya (Malaysia); taking responsibility as a mooting/advocacy trainer and a liaison between the Faculty of Law and British Council for the Young IP Law Ambassador Project**;**
- **Associate in Litigation Department, Allen & Overy (Thailand) LLP (2010)**: translating legal materials, preparing the Memos and drafting witness statements, claims, defences and counterclaims and, in particular, some

parts of the procurement contract for Hutch, Telenor, DTAC and AIS for their concession agreements in Thailand**;** reviewing and editing the shareholder agreements and loan agreements for JP Morgan Chase and Aberdeen Asset Management in Bangkok under the supervision of senior associates; collaborating with my colleague in writing a report concerning the ASEAN Comprehensive Investment Agreement and its impacts on foreign investors.

- **Summer placement (mini-pupillage) 2008 at 9 Gough Square, Chambers of Andrew Ritchie QC, London:** marshalling the barrister and attending trial in Nicola Thomas and Hannah & Richard Thomas v JR Compton Ltd at the **Royal** Court of Justice, London; accompanying the barrister to the conference with the solicitors and client in Fyffee v Nestle (UK) Ltd; practicing drafting defence and counterclaim in Janette Fortune v Patrick Bishop; giving opinion writing on liability and evidence in Deborah Cade v Essex City Council; advocacy training on opening speech; attending Harrogate Magistrates' Court with the barrister for closure order; assisting barrister in legal research on personal injuries, commercial contract, Sale of Goods Act, Interference of Goods Act, Highway Act and Local Authorities.
- **Gray's Inn's Residential Weekend at Cumberland Lodge, Windsor Park:** Advocacy training on witness handling (examination in chief and cross-examination).
- **Gray's Inn Mooting Workshop** in Hastie v Puff and Brag with Lord Justice Richards.
- **2nd Round Mooting Competition**, University of Wolverhampton
- **Summer Placement (June-August 2004)** in **Trademark Section, Intellectual Property Department, Tilleke & Gibbins International Ltd**: interviewing clients; recording and filing data; contacting clients and updating the status of their cases; drafting and translating papers; responding queries and e-mails; carrying out a research in categorizing the types of trademarks according to the Madrid Protocol.
- **Court Visit at San Miguel Magistrates' Court**, New Mexico, USA: observing witness examinations and the way the trials are conducted; reading papers; seeking advice from supervisor and Judge Ernesto Romero.

Advocacy and Public Speaking

- **International Students Representative**, University of Wolverhampton, 2004-2006: attending monthly Council meetings and representing the students' views on Campus to the Students Union and University.
- **Equal Opportunities Committee and Safety Policies Committee**2004-2005: attending quarterly Committee meetings; writing opinions; participating in drafting the motions; raising issues that are important to the student bodies; and passing the policies.
- **The motions that I played a major part**: the promote of the use of the British Sign Language, the increase of patrols and CCTV in the area around Randall Lines, the call for the Tsunami Appeal to the Raise and Give (RAG) Committee at the Council.
- **University elected delegate** to the 4 day National Union of Students NUS) Annual Conference 2005, Blackpool.
- **University nominated delegate** to the NUS Midlands Regional Conference 2004, UCE, and Birmingham.
- **Study-Visit Director, ELSA** (European Law Students' Association University of Wolverhampton): helping the board team to host the ELSA UK annual

Presidents' Meeting 2006; building the link with the ULMUS, ELSA local group in Republic of Czech for the study visit exchange programme.
- **School delegate**: attending the New Mexico State **Model United Nations Conference** on Missiles and Massed Weapons Destruction2002, USA
- Attending 1 week training in the **Constructive Engagement of Conflicts Project (CEC)** 2001, UWC, USA.

Community Services/Volunteer Works

- Playing Coochie Snorcher in Vagina Monologues on V-Day(Anti Domestic Violent Day) on Charitable Fund for Heaven Home, Birmingham, 2004
- Weekly Performance Arts for Kids Community Service (4 months), 2002
- Weekly Home Visit Community Services on Wednesday at Maria Rendon's house(2 years from 2001-2003), Montezuma, New Mexico, USA
- 10 Day Project Week Trip on Easter at Heaven Home for Women Phoenix, Arizona, USA, 2003
- Summer Volunteer in the Huber's House Ancient Building Renovation Project, Albuquerque, 2003
- Orientation Week Service at Habitats for Humanity Organisation (helping homeless people building their houses), Santa Fe, 2002

Interests

- Cross Cultures Value Activities: performing traditional Thai Dance and Malaysian Dance in the One World Show Event at the Art Theatre, Santa Fe, 2003; in charge of food Committee on Middle East Asian and Australian Day (MADD) 2002;performing Salsa Dance on Latino and Caribbean Day 2001
- 4-day Hiking Wilderness Expedition with SAR team to Lake Louise, Rocky Mountain, Santa Fe National Park
- 5th Kyu Member of The Aikido (Martial Art) Fellowship of Great Britain
- Member of the University of Sheffield's Ski Club
- I also love swimming.

Prize and Scholarship

- Royal Thai Government Scholarship (PhD)
- United World Colleges Scholarship (IB)
- Universal Cultural Exchange Programme, Victoria, BC, Canada 1998
- Nanmi book Thai award on children short stories on "My Dear Ozone" 1995

Jobs while study

- Residential Assistant, Residential Office, University of Wolverhampton 2004-2006: helping students settling down in hall; giving advice to students; being a conflict mediator in handling neighbour disputes and service complaints; coordinating with other RAs and campus manager; recording reports; organising campus tours on the Open Days
- Catering Services (Mon-Wed), MC Block, Wolverhampton, 2004-2005
- Full time summer staff, Randal Lines, 2006
- Staff at S10 Sport Club (5-8 am Mon-Fri), Sheffield 2007

Adaptive Environmental Law – Examples from Danish Water Law

Ecosystems have their trajectories, populations have their dynamics and watercourses have their flow regimes. This presentation explores the legislation for examples of environmental law adaptive to changes in the natural environment.

The concept of adaptive environmental law has emerged in varying forms and meanings. Many of these can be explained by diverging perceptions of who is supposed to adapt, what is supposed to be adapted and to what is it supposed to be adapted. This presentation looks into the law as such, and search for examples of rules that are made to be adaptive to a shifting environment.

The Danish environmental legislation is rich on details and curiosities and also include a few examples of "selv-adaptive" law; Legislation making legal protection dependent of migrating and immigrating species, permits dependent on natural water flows, institutional boundaries dependent of meandering streams, fertilizer norms dependent on rainfall - and variations like establishment of pollution ceilings for nutrient sensitive nature and catch crop quotas for livestock farms. Studying these examples reveals legislative techniques, innovations and approaches that might be considered used in other forms and situations when developing new adaptive legislation.

The presentation relies on the presumption that the law in many situations does not adequately allow for natural fluctuations or ecosystem dynamics. However, also in situations, where altered and degraded ecosystems have becoming unstable, adaptive legal regulations and norms might be used to stabilize the fluctuations and unwanted dynamics. Establishing ecosystem dependent legal premises and regulations will on the other hand inevitably raise questions with regard to legal certainty and protection of property rights.

Lasse Baaner B.Sc. LLM Ph.D. Post doc at Department of Food- and Resource Economics, Copenhagen University. Conducting teaching and research in the field of environmental law and nature management.

Session III.D

Short biography

Bernard Vanheusden is Associate Professor of Environmental Law at the Law Faculty of Hasselt University (Belgium). He teaches amongst others European Environmental Law (in English), Environmental Law (in Dutch) and Environmental Policy (in Dutch). His research mainly focuses on clean tech law (licensing, waste/materials management, soil remediation, wastewater, renewable energy, environmental impact assessment, brownfield redevelopment, land use,…). Bernard supervises various international and national research projects and PhD researches.

Bernard is one of the initiators and a member of the Managing Board of the European Environmental Law Forum (EELF). He is also a member of the IUCN World Commission on Environmental Law, and a member of its "Specialist Group on Sustainable Use of Soil and Desertification". Furthermore, he is associate editor of the *Journal for European Environmental & Planning Law* (JEEPL) and editor in chief of the Belgian review *Milieu- en Energierecht* (Environmental and Energy Law).

Managing a Sustainable Distribution of Costs and Benefits in Natural Resources Projects

By Anita Rønne

The growing demand for natural resources means that an increasing number of resources projects of escalating size will be located in more populated areas. Together with climate change issues and environmental protection more generally these developments are among the main drivers for the transformation there is taken place with respect to the utilization of natural resources. Their uses bring benefits for many, but also impose burdens on local communities and citizens. In general the public benefits from natural resources projects are recognized but for instance the reduction of green house gases when replacing oil and coal resources with shale gas or renewables may be too diffuse a benefit to count for local communities and individuals. The distribution of costs and benefits is therefore questioned and opposition may increase. A range of new legal mechanisms and associated agreements have arisen which seek to balance the impacts of natural and resources projects, and, in some instances, to enable tangible benefits for local communities.

The paper examines the emergence of such legal measures, and will compare their advantages and disadvantages, and the improvements that may be feasible in the legal frameworks used to distribute the costs and benefits of natural resources activity. Whereas public participation in the context of the Aarhus convention primarily is concerned with environment protection with process, protection, and mitigation of resource impacts; the focus of this paper is much wider and may encompass employment, education, participation models, ownership, rewards, special charges and financial compensation and restoration funds. Many citizens and local communities have thus increasingly come to seek explicit economic and social benefits from resource developments through partnerships and collaboration, rather than merely protective responses and conventional rules dealing with liability, expropriation and nuisance.

The legal mechanism may be found in both private and public law and may have either a binding or soft law legal background. They include negotiation and agreement frameworks, codes & principles and both government-facilitated and party-to-party arrangements. Legal questions that will arise are among others: How to ensure the right balance between participatory rights in project decision-making provided by other legislation, and participatory rights pursuant to benefit sharing schemes? Moreover, how to ensure that benefits are shared and distributed in a fair and justified way?

The paper will include case examples from the United Kingdom, Denmark and the Netherlands to illustrate developments and pin point legal questions and challenges in order to possibly highlight best practices.

ANITA RØNNE is Associate Professor in Energy Law, Faculty of Law, University of Copenhagen. She is appointed by the Minister as a member of the Danish Energy Regulatory Authority; and as Chair of the Valuation Committee for neighbours to wind projects under the Law of Renewables. She holds the Chair of the Danish Energy Law Society and is a member and former chairman of the Academic Advisory Group, SEERIL, IBA. She is also a Member of the Committee on Climate Change of the International Law Association, and of the Study Board of North Sea Energy Law Programme (Universities of Oslo, Aberdeen & Groningen, funded by EU - L.L.L.P. She teaches within the area of energy law and climate change law. She has administrative experience from the Danish Ministry of Energy and as consultant under EU Commission and World Bank secondment (Eastern Europe, South Africa, Malaysia). She is an author and co-editor of Energy Law in Europe; Energy Security; Regulating Energy & Natural Resources (all Oxford University Press), Legal Systems and Wind Energy (Kluwer Law Int. & DJØF Publishing) and has drafted many book chapters and articles (in English and Danish).

UNIVERSITY of STIRLING
Faculty of Arts and Humanities
Law & Philosophy

Distributing the benefits and burdens associated with the energy transition: lessons from community renewables

Dr Annalisa Savaresi
Lecturer in Environmental Law, University of Stirling, UK

The fight against climate change requires a swift energy transition, replacing fossil fuel-based energy generation technologies with renewable ones. Energy transitions raise complex questions associated not only with reforming existing regulatory frameworks, but also with the distribution of the related benefits and burdens. In recent years polycentric (Ostrom, 1990) bottom-up approaches to environmental governance have been put forward as a possible solution to this conundrum.

At the national and subnational level, measures to stimulate local renewable energy generation have been adopted in numerous states, rapidly turning local and rural communities into key actors in the energy transition. This shift is echoed in a recent European Commission proposal for EU renewable energy law post 2020, which includes provisions promoting renewable energy self-consumption, as well as access to energy markets for community-produced renewable energy.

This paper considers so-called 'community renewables' as a casestudy to understand how questions concerning the distribution of benefits and burdens associated with the energy transition can be addressed and the role of law in providing solutions to these. Community renewables have been widely investigated by social scientists (e.g. Walker and Devine-Wright, 2008; Seyfang, Park and Martin, 2013; Hagget and Aitken, 2015) who have conceptualized it as a form of niche innovation (e.g. van der Schoor and Scholtens, 2015), and a manifestation of a bottom-up approach to the energy transition (Smith et al, 2016). This literature emphasises how greater scholarly enquiry is needed to identify the regulatory tools best suited to support community renewables.

Legal scholarship has so far paid limited attention to this matter, narrowly focussing on the role of law in overcoming resistance to the development of renewable energy infrastructure and generation (Roenne, 2016), on the basis of procedural justice (Lee, 2013; Armeni, 2016). This paper builds upon this literature, looking at community renewables as a casestudy to analyse distributive justice questions underlying energy transitions and the role of law in addressing these. To this end, the paper identifies a series of core interrogatives concerning community renewables and analyses the way they have been addressed. The paper is divided in four parts. First, it introduces the notion of community renewables and the regulatory questions it raises, distinguishing between questions of access and questions of sharing. The

second and third part analyse how these questions have been addressed, drawing on examples from states that have predominantly relied on locally owned/managed renewables infrastructure, as well as states that have only recently moved towards a community-focused approach to renewable energy generation. The fourth and conclusive part of the paper reflects on what we know about community renewables and their suitability to address justice questions underlying energy transitions, mapping an agenda for future research.

Author's biography

Annalisa Savaresi is Lecturer in Environmental Law at the University of Stirling, UK. She has several years' experience researching, teaching and working with environmental law. Her research focuses on climate change, biodiversity, forestry, renewable energy and the interplay between environmental and human rights law. Her work has been published in numerous peer-reviewed outlets and has been widely cited, including by the United Nations Environment Programme and the United Nations Permanent Forum on Indigenous Issues.

Annalisa has taught international, European and comparative environmental law at the undergraduate and postgraduate level, as well as part of doctoral and executive education programmes at the University of Edinburgh, UK; University of Strathclyde, UK; Sant'Anna School of Advanced Studies, Italy; University of Copenhagen, Denmark; and the University of la Sabana, Colombia. She has served as a consultant for prestigious think-tanks and organisations, including the International Institute for Sustainable Development and the International IUCN. Annalisa is member of the IUCN World Commission on Environmental Law and associate editor of the *Review of European, Comparative and International Law*.

Functioning of compensation mechanisms on local acceptance of wind energy projects

Marie Leer Jørgensen, PhD-Fellow, Department of Food and Resource Economics, Copenhagen University.

In order to address an increasing tendency of local opposition towards wind energy projects, the Danish Government in 2009 introduced three compensation schemes in the Act on Renewable Energy. The schemes are different compensation mechanisms: 1) compensation for property value-loss, 2) an option to purchase shares for local residents (co-ownership scheme) and 3) a green fund supporting local recreational projects. The instrumental purpose of the schemes is to address the often perceived distributive unfairness when developers may profit from wind energy projects while the local community will bear the adverse impacts of e.g. noise and changed landscapes. The schemes are a new type of proactive environmental regulation – intending to influence attitudes and behaviour of individual citizens. The key question is, whether it is possible to change peoples' perceptions and their attitudes towards a specific wind energy project through such proactive mechanisms?
From a theoretical perspective many interrelated factors influence local acceptance e.g. distributive and procedural fairness, trust and place-attachment. The role of compensation schemes will therefore be relative depending on how these factors unfold and interrelate in the specific project context at the specific time. Furthermore, the role of compensation schemes will depend on peoples' perceptions of the schemes. This will rely on how the schemes meet the local concerns and social norms relating to the siting of the specific project and on their functioning and effect in practice – i.e. whether they are considered procedurally and distributional fair and how they influence social relations in the local community. Since the purpose and rationale of the Danish schemes primarily address distributional issues such schemes cannot be expected to be a panacea that alone will promote local acceptance. An empirical case study of three on-shore wind energy projects has been carried out to investigate local perceptions regarding the three Danish compensation schemes. Examples from interviews with local residents exemplify and support the presentation of the theoretical framework and illustrate challenges and pitfalls to the success of such schemes.

Marie Leer Jørgensen is PhD-Fellow at Institute of Food and Resource Economics, Copenhagen University, mlj@ifro.ku.dk. *This research is carried out in context of the interdisciplinary Wind2050 project funded by the Danish Strategic Research Council, www.wind2050.dk .*
Research interests: limits and potentials for environmental regulation for a sustainable development, environmental justice, methodology for evaluation of environmental regulation

European Environmental Law Forum
University of Copenhagen

Public Acceptance and Participation in Decision-making for Wind Energy Projects: A critical perspective

Chiara Armeni
University of Sussex

Abstract:

This paper engages with the notion of 'public acceptance' and its relationship with public participation in decision-making for wind energy projects. It discusses the contested meaning of public acceptance, viewed as passive engagement, and the role of key factors, such as environmental and landscape concerns, place attachment and the distribution of cost and benefits, in shaping public attitudes towards wind energy developments. It suggests that, when the influence of these factors on the decision-making process is restricted, 'logic of acceptance' can limit the scope of public participation. The paper refers to the English planning system for major wind farms where, although public consultation is required, the policy framework prioritises policy objectives over discretion. This can reduce the legitimate weight of community's concerns, suggesting a focus on (passive) acceptance, at the expenses of public participation.

Session III.E

Christian Prip – short bio.

I am a Senior Policy Analyst at the Fridtjof Nansen Institute in Oslo, Norway (www.fni.no), an independent foundation engaged in research on international environmental, energy and resource management politics and law. My main research area is environmental policy and law in the field of biodiversity, natural resources and the marine environment.

By the end of 2012 I ended a long career in the Danish Ministry of Environment as Chief International Adviser with special responsibility for international cooperation on biodiversity and natural resources. In this capacity, I was lead negotiator for Denmark and (during Danish EU Presidencies) EU in international environmental negotiations. I held the position as chairman of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the UN Convention on Biological Diversity from 2005 to 2007.

From 2006 to 2008 I was associate professor at the University of Copenhagen lecturing in international environmental law.

Annual EELF Conference 2017:
Sustainable Management of Natural Resources – Legal Approaches and Instruments
Copenhagen, 30 August – 1 September 2017

Paper Proposal

Title: Climate Change and International Fisheries
Author/presenter: Rosemary Rayfuse

Abstract:
The oceans were once described as the 'Cinderella of the UN climate negotiations'.[1] Despite constituting the largest sink of carbon dioxide and representing more than 30% of the global carbon cycle 'no one ha[d] asked them to the Ball'. This changed in December 2015 with the adoption of the Paris Agreement which specifically notes the importance of ensuring the integrity of ocean ecosystems and the fundamental priority of safeguarding global food security, particularly those food production systems susceptible to the adverse impacts of climate change.

Fish provide a vital contribution to global food security. However, the Intergovernmental Panel on Climate Change warns that by 2025, global redistribution of fish yields coupled with decreases in open ocean net primary production and fish habitat caused by ocean warming, anoxia and acidification will have profound implications for global food security.[2] When occurring within the context of an international legal framework that allocates jurisdictional responsibility for fisheries conservation and management either to coastal states or to regional fisheries management organisations and arrangements (RFMOs), changes in species distribution and productivity pose significant challenges for international fisheries law as well. In other words, the challenges relate not only to ecosystem and stock resilience but to institutional resilience as well.

This paper will examine the implications of climate change for international fisheries focusing on issues of both ecosystem/stock resilience and institutional resilience. It will start with an examination of the growing awareness of the relevance and importance of oceans and fisheries within the evolving climate regime. It will then examine the structural limitations on RFMOs arising from the need to implement precautionary, ecosystem management regimes under conditions of uncertainty. This will include an analysis of factors affecting the institutional robustness of RFMOs, framed around the regime requirements identified by *Lockwood et al* as necessary to the governance of and management of marine biodiversity conservation in a climate changed world.[3] The paper will then examine the measures and other actions being adopted within RFMOs to address the threats posed by climate change and associated ocean acidification to the stocks under their management. Particular attention will be paid to the role of the EU in improving the efficacy of decision-making procedures and supporting the emergence of mechanisms for cooperation within and between existing RFMOs. Some conclusions may be drawn relating to the coherence between and among

[1] David Freestone, 'Climate Change and the Oceans', (2009) 4 *Carbon and Climate Law Review* 383-386
[2] IPCC (2014) WG II Ocean Systems 5
[3] M Lockwood et al, 'Marine biodiversity conservation governance and management: Regime requirements for global environmental change' (2012) 69 *Ocean and Coastal Management* 160.

RFMOs and other international actors and institutions for the purpose of identifying challenges to and opportunities for the promotion of improved fisheries governance in this era of climate change.

Bio:
Rosemary Rayfuse is Scientia Professor of International Law at UNSW Australia. She is a Conjoint Professor in the Law Faculty at Lund University where, in 2017-18, she holds the Swedish Research Council Kerstin Hesselgren Visiting Professorship. She is also a Visiting Professor at the University of Gothenburg. Her research focuses on oceans governance, high seas fisheries, protection of the marine environment in areas beyond national jurisdiction, and the normative effects of climate change on international law. She is author of over 300 publications on these and other topics of international law which combine analyses of international legal doctrine and practice with empirical analysis of state practice and multi-disciplinary engagement. She is on the editorial or advisory boards of a number of international law journals, is a member of the IUCN Commission on Environmental Law, and Chair's Nominee on the International Law Association's Committee on International Law and Sea-Level Rise.

The role and repercussions of the EU negotiating an international agreement on marine biological diversity of areas beyond national jurisdiction

Dr Bjørn-Oliver Magsig
University College Cork, School of Law

Abstract

Humanity depends on healthy oceans for food, energy, transport, and a stable climate. Yet we still mismanage the marine environment with pollution, ocean acidification and overfishing leading to dramatic biodiversity loss which pushes our oceans to the point of collapse. This bleak outlook makes the sustainable use and conservation of marine living resources (MLR) a daunting task for society. While international law has been concerned with the regulation of MLR for decades, it continues to favour an approach of national sovereignty over maritime dominions and exploitation interests rather than conservation of maritime biodiversity for the common good.

Yet recent developments do provide a flicker of hope for the international community. In 2015, UN General Assembly Resolution 69/292 committed member states to develop an international legally-binding instrument under the UN Convention on the Law of the Sea (UNCLOS) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (ABNJ). A Preparatory Committee has been tasked to make substantive recommendations to the UN General Assembly on the elements of a draft text by the end of this year. A robust and far reaching UNCLOS implementing agreement to protect the marine biodiversity in ABNJ will fundamentally change the way the international community engages with its largest ecosystem and biosphere.

The interests of the European Union in the management of ABNJ are manifold. This extends from biodiversity protection and establishment of marine protected areas, environmental impact assessment and strategic environmental assessment, transfer of marine technology and capacity building, to the use of marine genetic resources. This paper will analyse the role of the EU in the process of negotiating the agreement on marine biological diversity of ABNJ and examine the repercussions the potential future treaty might have on EU's marine environmental policy. Given that both the EU and its member states are parties to UNCLOS, does the EU manage to unite the various diverging views and interests of its member states in the negotiations? Are the emerging rules and principles of the UNCLOS implementing agreement compatible with current EU marine policies? While being recognised as an increasingly important area, the interaction between the Law of the Sea and EU law has, so far, attracted only little attention. This paper hopes to illuminate this relationship by focusing on the sustainable use and conservation of marine living resources in ABNJ.

Bio note

Dr Bjørn-Oliver Magsig is a Lecturer in Law at University College Cork (Ireland) where he focuses on international environmental law, water diplomacy and the links between natural resources, international security and equity. He teaches Principles of Public International Law, Human Rights Law, Contemporary Issues in International Law, International Environmental Law and Law of the Sea. Bjørn-Oliver has lead various interdisciplinary projects revolving around the socio-legal challenges of managing transboundary natural resources, serves on the Managing Board of the European Environmental Law Forum (EELF) and is a member of the IUCN World Commission on Environmental Law.

Maciej Nyka & Sarah Kleinschumacher

Deep Sea Stewardship and the Role of the International Seabed Authority in Sustainable Management of Natural Resources in the Area

Abstract

The concept of intergenerational justice is deeply rooted in the regulation of activities in the area. The United Nations Convention on the Law of the Sea on many occasion stresses the need to protect the marine environment in the interest of both contemporary and future generations. One of the institutions with vast competences in this field is the International Seabed Authority. With a perspective on the very likely commercial exploration and exploitation of seabed resources, there is a need to answer the question- is the Seabed Authority properly prepared in the fields of law and policy to act as a steward of mankind? What instruments have been developed to ensure sustainable use of seabed resources and which of them are at the disposal of the International Seabed Authority? Finally, are the standards of the protection of the seabed environment sufficient to satisfy the needs of contemporary consumption without diminishing the ability of mankind in the future to freely choose their path of development?

We can assume that environmental standards which would protect the interest of future people would also secure the sustainability in contemporary use of common heritage at sea. The International Seabed Authority and international law of the sea can play an important role in this process by shaping the future of mankind with actions undertaken today.

Biography note Author 1

Maciej Nyka (PhD) is Adiunct at the Department of Public Economic Law and Environmental Protection, Faculty of Law and Administration, University of Gdansk (Poland). He is author of over fifty books, chapters and articles published in Poland, Slovakia, Germany, Great Britain and Sweden. His main area of research are interactions between economic law and environmental protection in Polish and International Law, as well as maritime environment protection law.

Biography note Author 2

Sarah Kleinschumacher is student of law at the Heinrich-Heine-Universität in Düsseldorf, Germany. She is a scholar of the Polish government and member of the Erasmus+ programme at the Department of Law and Administration at the University of Gdansk. Her scientific interests touch upon the problems connected with legal protection of the environment

Session IV.A

Annual EELF Conference 2017 “Sustainable Management of Natural Resources: Legal Approaches and Instruments”, Copenhagen, 30 August - 1 September 2017:

Ecological Sustainability as a Fundamental Principle of Law

Klaus Bosselmann
New Zealand Centre for Environmental Law, University of Auckland

Abstract

The paper argues for taking ecological sustainability seriously by making three points.

First, we need to locate sustainability in a wider geological and socio-economic context. The history of life on Earth teaches us a remarkable dialectic of collapse and recovery – one follows the other in a never-ending evolutionary process. The fate of humans in this process is no different from the fate of other species. Human civilizations have oscillated from (degrees of) sustainability to collapse and back again.

Second, in the Anthropocene we are facing global civilizational collapse as humans are overstepping planetary boundaries. Unless humanity finds some extreme solutions (e.g. escaping the planet or radically shrinking in numbers), the only viable option is to prioritize preserving and restoring the integrity of Earth’s ecological systems.

Third, international environmental law has is increasingly acknowledged the fundamental importance of ecological integrity. For policy and law-making, ecological sustainability is not everything, but everything is nothing without it. It is time, therefore, to recognize ecological sustainability as a fundamental legal principle akin to the recognition of fundamental human rights.

Law and Ecological Sustainability: perspectives *de lege ferenda* and *de lege lata*

Mauerhofer V. [*]

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Proposed for the subtheme 5) Ecological sustainability – fundamental questions and implications for environmental law and governance

Abstract

Legal Institutions and Ecological Sustainability are interrelated in multifaceted ways.

This paper has two distinct aims. Firstly, it strives to provide based on ongoing research about '3-D Sustainability' a conceptual overview on the two main objectives that should be addressed when modifying international law and subordinated law in a more sustainable direction. These are to stay by means of international environmental law within the ecologically sustainable scale and to legally define flexible trade-off mechanisms. Secondly, the paper aims to identify ways to further strengthen the law in this same direction. By addressing the first aim, an approach is applied that looks on how law should be ('de-lege ferenda'). The second aim is assessed based on the law how it is ('de-lege lata').

'3-D Sustainability' is a rather young interdisciplinary concept that offers decision-making support for priority setting between environmental, social and economic dimensions within Sustainable Development. 3-D Sustainability aims at the maintenance or restoration of environmental, social and economic carrying capacities in terms of safe minimum standards. 3-D Sustainability is particularly applicable for cases of uncertainty based on the precautionary principle and emphasising the distribution as well as extent of the burden of proof. It introduces a preliminary order of six criteria for the assessment of hierarchies within as well as conflicts between social, environmental and economic sustainability, and the theoretical application of the criteria of 3-D Sustainability on several real examples of legal acts indicates its usefulness in practice (Mauerhofer, 2008). Recently, the concept provided also the basis for the application of a tool called the Legislation Check (Mauerhofer, 2012; Elbakidze et al., 2013) assessing legal norms as the "rules of the game" as well as for another tool called the Governance Check (Mauerhofer, 2013) which focuses more on the analysis of governmental organizations as "players of the game" and their mutual relationship. Furthermore, new application situation for this concept and the checks are presenting from ongoing work (Mauerhofer, 2014, 2016). This increases the range of case studies and fields of impact, both leading to further support for the theoretical and practical usability of 3-D Sustainability.

The second part of the paper aims to implement the existing law towards sustainable development and the perspectives therefor are identified – also based on ongoing research - to be numerous. They include voluntary approaches such as a 'Convention Check' (Mauerhofer, 2011) through organizations managing protected areas, an increased capacity building among civil servants and judges about the direct effect of MEAs, the extension of the geographic scope of MEAs based on the 'accession of regions' and the re-interpretation of MEAs towards a more scientific basis (Mauerhofer, 2014, 2016).

In summary, the paper innovatively offers - based on ongoing research - several 'de lege ferenda' solution proposals for addressing in a sustainable manner geopolitical and organizational scales as well as trade-offs when it comes to modifying existing law. It further provides proposals for the innovative implementation of existing international environmental law regimes ('de-lege lata') without changing the text of the law.

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Main theses/conclusions

Law regarding Ecological Sustainability ought to

1. fix the environmentally sustainable scale of capacitating environmental capital in absolute terms on supranational, national and subnational socio-political levels
2. lay down flexible trade-offs mechanisms between the three Sustainability-dimensions based on scientifically sound criteria also to support 1., and
3. additionally address more voluntary bottom-up approaches for its improved implementation and approaches for its improved implementation that do not necessarily need a change of its wording.

Biography of the presenter

Volker Mauerhofer holds Master degrees in Laws (1989-93), Natural Sciences (1992-99) and Ecological Economics (2002-03) and a Doctorate (1993-98) in Law. He is former Attorney-at-Law and former Senior Research Fellow as well as Visiting Professor at United Nations University/Japan after having taught and researched there for over two years. Currently he is a Lecturer at the University of Vienna, holding several visiting researcher positions in Japan, and a Coordinating Lead Author of the UN-IPBES Global Assessment/Chapter 6. He is member of different legal professional bodies including IUCN's World Commission on Environmental Law (WCEL) and board member as well as auditor of the International Sustainable Development Research Society (ISDRS). Editing currently several Special Issues, he is co-/author of already more than 100 peer-reviewed publications and held more than 120 presentations worldwide. Besides supervising students, he has executed academic and freelance research over 20 years in more than 50 countries.

ADAPTING LAW AND GOVERNANCE TO THE AGE OF SUSTAINABILITY AND BIODIVERSITY

TIAGO DE MELO CARTAXO
Nova School of Law, Universidade Nova de Lisboa, Portugal

Social communities change and evolve. The same happens with territories and ecosystems. In a large number of cases, it occurs as cause of human action, but not only because of it.

Nowadays, with the succeeding approval of several agreements signed by the general international community, such as the Paris Agreement, which assume climate change as a concrete reality, states are permanently looking for new legal mechanisms and solutions in order to implement a decarbonized economy, but also fostering a general spirit within communities of living side-by-side with nature and biodiversity.

While in cities the questions of pollution, health, efficiency and well-being are paramount, in rural areas and particularly in natural protected areas it is more and more urgent to promote sustainable farming and tourism activities that respect ecosystems, the life of different species, as well as the existent natural resources. Therefore, in order to face the mentioned concerns, politicians, legislators and public officials, both at national or local levels, as well as companies and anonymous citizens, must find ways of adapting to the needs of more liveable and naturally balanced communities and territories, for present and future generations.

These are the arguments that must contribute as a basis for a completely different perspective of dealing with law and governance in the areas of environment, nature conservation and spatial planning. As a matter of fact, the mechanisms used for fostering the so-called “smart territories” (which also are to be sustainable, inclusive and resilient territories), such as the use of new technologies, open data, monitoring, information and public participation, must be adopted by legal and governance systems within different territories, from urban to rural or natural protected areas. Adaptive law, or in other words “smart law”, will play the catalysing role of articulating the wide range of the idiosyncratic elements of each territory.

In this sense, both EU and national legal systems, through directives, regulations, guidelines, laws and even judicial adjudications, must adopt this smarter and more adaptive perspective, following a new paradigm of monitoring and responding to different social and ecological realities and their evolution throughout time.

Adaptive, flexible, participated, perceptive legal and governance mechanisms consist of the most innovative secrets for enhancing the future of people’s lives, but also the quality and consistency of ecosystems and biodiversity, in a smarter and more resilient Anthropocene.

Subthemes: Ecological sustainability; Biodiversity and Nature Management

SHORT BIO

TIAGO DE MELO CARTAXO
Nova School of Law, Universidade Nova de Lisboa, Portugal

Tiago de Melo Cartaxo is a PhD researcher in Law at Universidade Nova de Lisboa and Centre for Law and Society, with a scholarship from FCT - Portuguese Foundation for Science and Technology. He holds a degree in Law and a postgraduate degree in Energy Law from the University of Lisbon, as well as a master's degree in Planning, Urbanism and Environment Law from the University of Coimbra. He also completed a course in Adaptive Planning and Resilience at the University of Louisville. Tiago worked as lawyer in several law firms, in the legal department of Lisbon City Council, and he was an adviser to the Portuguese government, integrating public commissions in the areas of environment, spatial planning and economics. He is author of various communications in Portuguese and European universities, scientific articles and reviews in the areas of environmental law, land use, public policy and governance for sustainable development.

Author:
Marco Túlio Reis Magalhães

Title:
The legal approach of ecological sustainability in the European Environmental Law and its contribution as a paradigm for the Common Market of South America (Mercosul).

Abstract
This article analyzes the legal approach of ecological sustainability in the European Environmental Law and its contribution as a paradigm for the Common Market of South America (Mercosul). The investigation begins with the identification of the historical origins and concepts related to ecological sustainability. The idea of sustainable development (defined in the Brundtland Report and extended to a lot of international instruments, declarations and documents regarding environmental protection) is also investigated as a comparative approach, aiming to identify if that concept matches the idea of ecological sustainability. Some challenges and problems of the ecological sustainability as a legal concept are presented and discussed, in addition with elements of the international environmental law and national legal definitions on the constitutional level. The introduction and development of the concept of ecological sustainability in the European Environmental Law is additionally presented, considering the main legal provisions of the European Union that mentions this concept. Furthermore, some positive and negative aspects of the legal definition of ecological sustainability as an important legal tool for the European environmental policies are discussed. This broader perspective of investigation is complemented by a detailed analysis of the legal framework of the Common Market of South America (Mercosul) regarding the adoption of the ecological sustainability in its main constitutive legal rules. Special attention is given to the Framework Agreement regarding environmental protection, which was established in 2001. We question the adequacy of this Framework Agreement, the dogmatic and legal aspects and problems that it involves and the limits and possibilities of its implementation. We argue that a broader legal framework, with some binding legal rules would enforce a more seriously approach to improve the ecological sustainability in the common policies of the Mercosul. The identification of principles, main objectives, periodical meetings and an independent institutional framework should also be improved. Even if there are evident differences between the environmental legal framework between the European Union and the Mercosul, this article assumes that the set of legal rules established in the European Environmental Law – specially regarding ecological sustainability – and the way they have been implemented are a significant paradigm for a learning process for Mercosul, in order to improve ecological sustainability in its common policies, which can learn from the example of the positive and negative aspects of the European Environmental Law.

Short biography:
PhD Law Student at University of São Paulo – USP (Brazil) and Freie Universität Berlin (Germany). Master in Law (2008) and Bachelor in Law (2005) at University of Brasília - UNB (Brazil). Federal Attorney in Brazil.

Subtheme – Cross-cutting theme:
Ecological Sustainability – fundamental questions and implications for environmental law and governance

Session IV.B

Mary is an environmental law lecturer in the Law School in Queen's University Belfast, having studied previously in both Paris and Dublin. Her research focuses on areas such as EU environmental and constitutional law. In particular, she specializes on issues surrounding the cultivation of genetically modified (GM) crops. Mary recently undertook research funded by the British Academy regarding the governance of GM crops within the EU and the ability and desire of Member States or regions to 'opt-out'. She is also currently exploring the significance of the enclosure of plant material through either biological mechanisms or intellectual property law for agricultural sustainability and food security.

Abstract

Landscape Planning for Forest Biodiversity and Diverse Forestry

Subtheme Biodiversity and Nature Management

Presenters: Maria Forsberg and Gabriel Michanek

Evaluations by the Swedish Environmental Protection Agency indicate that it will not be possible to meet the Parliament's Environmental Objective "Sustainable Forests" with current or planned policy instruments. This is in part due to the lack of landscape strategies and environmental considerations in felling. Sweden is thus not capable to comply with international obligations to protect forest habitats according to e.g. the Habitats Directives. At the same time, timber production is essential, not least as biomass may plays a significant role in the conversion of the energy system, which relates to obligations in the EU Renewables Directive and the Swedish Parliament's national objective "Reduced Climate Impact".

The purpose of the multi-disciplinary research project "Landscape Planning for Forest Biodiversity and Diverse Forestry" (including three part studies) is to explore preconditions for landscape planning of forest landscapes in order to promote a more sustainable and diverse management of forests, aiming at stronger protection of biodiversity in some areas and intensive forestry in other areas. In a first study, an ecological model for landscape strategies and planning-simulation is used, developing scenarios that are used as the basis for a subsequent legal study on landscape forest planning. This study explores e.g. how such planning in France and Finland is regulated and applied. The study also analyses if adaptive planning (used e.g. in the EU Water Framework Directive) could be used in planning of forest landscapes. Finally, legal complications related to the implementation of forest planning are explored and discussed, for example legal consequences for property rights related to forest resources. In order to create a self-supporting system, where costs for conservation of biodiversity are more evenly distributed among land owners, a third study will bring forward and discuss an economic regulation where tree felling is taxed and taxed means are allocated to those land owners who are disfavoured by the restrictions of the plan.

At the conference, we will highlight some of the legal implications identified in the project.

Tree Cutting Permits - Legal Instruments for the Protection of Trees in Poland

Bartosz Kuraś, LL.M. *(Freiburg im Breisgau)*, legal advisor, ph.d. candidate

Trees – and forests in particular – enjoy special protection. In Poland, cutting a tree as a general rule, requires a permit. The permit system in effect until the early 2017 was more restrictive than it is today. Anyone who wanted to cut a tree on their property, whether an individual or a corporation, needed a permit. However, new legislation that came into force in 2017 allowed property owners to cut trees on their property almost without limitation. This resulted in an unprecedented and uncontrolled tree cutting spree across Poland. The new law caused huge protests as vast areas of woodland had been chopped down, and an angry public debate ensued. The current government, which is behind the new legislation, is backtracking in an attempt to amend the new law by adding new and perhaps re-introducing some previous restrictions, although by introducing different legal mechanisms.

The article provides an overview of Polish legal tree-protection instruments which are in force in Poland currently and which were in force before 2017 and were eliminated as a result of a clash between the liberal and more restrictive woodland protection system. The article also includes an overall assessment of the suitability and effectiveness of both systems along with *de lege ferenda* proposals of how to improve the tree protection system to ensure sustainability on the one hand and the right of the owner to manage the growth of trees on his property.

Three main theses:

1. The system introduced in the early 2017 is too liberal and has allowed property owners to clear their properties off trees generally with no or little restrictions and supervision.

2. There should be a balance between property owners' rights and the need to protect trees, and, even if the system in force before 2017 was too restrictive, the current system goes too far in the opposite direction. If unchecked, it will cause damage that will be very difficult to reverse.

3. The need to notify the intention to cut trees or the need to be granted an administrative permit to this end could be a legal mechanism that would best serve the protection of trees. As concerns individual property owners, the general rule should be that a tree cutting permit is granted as a rule, whereas its denial requires special justification.

Bartosz Kuraś, LLM, is a legal adviser and a member of Environmental Law as well as M&A and Corporate practices at Wardyński & Partners law firm. He is a member of the Poznań Regional Chamber of Legal Advisers.

He handles environmental law, with a particular focus on issues concerning liability for damage to the environment and waste management, as well as corporate law, particularly in the area of M&A and ongoing corporate advice.

Bartosz Kuraś graduated from the Faculty of Law and Administration at Adam Mickiewicz University in Poznań (2006) and the Faculty of Law at the University of Freiburg (2008). He is a Ph. D. candidate working on a dissertation: *legal aspects of waste management in agricultural* at the Chair of Agricultural Law at the Adam Mickiewicz University in Poznań.

Chosen publications:

- co-author of three books published by LexisNexis Polska in cooperation with Wardyński & Partners: *Mergers and Acquisitions Transactions* (Warsaw 2011), *Legal Risks in M&A Transactions* (Warsaw 2013), and *Environmental Law in M&A and Real Estate Transactions* (Warsaw 2014).
- *The 'polluter pays' principle and liability for soil pollution being a result of agricultural activity (selected questions)*, Agricultural Law Review, nr. 1 (10), Poznań 2012.
- co-author of *Climate Change Liability Transnational Law and Practice*, Cambridge, 2011.

Languages: Polish, English, German

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Abstract proposal by
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The legal challenges of the proposed EU regulatory frameworks on LULUCF and sustainable forest biomass

The regulatory landscape around LULUCF is currently under construction both internationally and within the EU. The Paris Agreement, which entered into force on 4 November 2016, sets a collective goal to limit the global average temperature increase to well-below 2°C above pre-industrial levels and to pursue efforts to limit temperature increase to 1.5°C. In this context, it has been estimated that the land use, land-use change and forestry (LULUCF) sector plays an important role in achieving these ambitious objectives. The Paris Agreement is based on nationally determined contributions (NDCs), and each country can decide whether its NDC includes the LULUCF sector.

The EU is in the process of finalizing its new regulatory framework on climate change, including LULUCF, for the 2021–2030 period. The EU has submitted a joint NDC in context of the Paris Agreement to reduce greenhouse gas emissions by at least 40% from 1990 levels by 2030. In July 2016, the EU Commission made a proposal on effort-sharing between EU Member States in sectors not covered by the EU emissions trading scheme (EU ETS). The proposal also addresses flexibilities between sectors. Together with the effort-sharing proposal the European Commission presented a legislative proposal to integrate GHG emissions and removals from the LULUCF sector into the 2030 climate and energy framework. The proposal is based on a 'no debit' approach meaning that land-use emissions must be entirely compensated by removals, with some flexibilities. Later in 2016, the Commission published a proposal for a revised Renewable Energy Directive, including a risk-based sustainability criterion for forest biomass. The production of bioenergy is directly linked with the LULUCF sector's emissions, and thus the criterion aims to guarantee the sustainability of forest biomass used in the energy sector, including through a LULUCF requirement ensuring proper carbon accounting of carbon impacts of forest biomass used for energy.

However, while the inclusion of the LULUCF sector into the EU's regulatory framework on climate change, as well as extending the sustainability criteria on forest biomass were both necessary and expected regulatory updates, both of these regulatory initiatives have raised concerns in relation to e.g. the applicability of the accounting rules set by the Commission (i.e. because the nature of the LULUCF sector varies considerably among Member States). Also the actual GHG emission savings from the use of bioenergy have been challenged. The challenges linked to LULUCF go further than the ones directly associated with LULUCF's climate concerns. A range of other complex questions are also discussed together proposals. For example, the developing European bioeconomy demands the increased use of bioenergy in the near future. At the same time, the EU has adopted an ambitious strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. If the increased use of bioenergy leads to decrease in biodiversity, bioecomy is not growing on a sustainable base. Therefore, what is the capability of the LULUCF rules to safeguard the sustainability of forest biomass?

The presentation at the EELF seminar would be based on an ongoing research clarifying and discussing the regulatory aspects and the regulatory challenges of the new frameworks on LULUCF and forest biomass sustainability. What new legal and regulatory implications will these new rules bring forward?

Fifth Annual European Environmental Law Forum Conference,
30 August - 1 September 2017, Copenhagen, Denmark
Sustainable Management of Natural Resources,
2. Biodiversity and Nature Management

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What is the Value of Climate Law and Policy on the LULUCF Sector for Sustainable Forest Management? (Perspectives from the European Union and the Russian Federation)

Current governance framework of the LULUCF sector[1] comes mostly from the international climate change regime and is agreed upon through the relevant COP/CMP decisions. Accounting of removals and emissions in the LULUCF sector depends to a large extent on the specific technical guidance, developed for the implementation of the Kyoto Protocol,[2] and largely builds on the IPCC guidelines. The Paris Agreement,[3] however, has introduced a bottom-up approach to emission reduction commitments. Similarly to the Kyoto Protocol, it requires all Parties to report information on their LULUCF emissions and removals.[4] Yet, in comparison to the Kyoto Protocol, the Agreement does not contain a single harmonized set of legally binding accounting rules and does not specify how emissions and removals from the LULUCF sector are to be counted towards national reduction targets. Parties are not bound by one stringent international set of standards. The absence of the international governance allows countries to develop the LULUCF sector governance best responding to their needs. Better use of this opportunity could also provide additional benefits, such as, for instance, sustainable forest management and biodiversity conservation.

The presentation evaluates whether the LULUCF sector regulation under the EU and the RF climate law and policy contributes to sustainable forest management and forest biodiversity conservation. (1) Firstly, the presentation introduces the role of forests as carbon sinks in the EU and the RF, i.e. why is it important to account for the LULUCF sector under the (sub)national climate law and policy?; (2) Secondly, the current integration of the LULUCF sector into the (sub)national climate law and policy is

[1] Land Use Land Use Change and Forestry Sector (LULUCF) is one of the five sectors (a "sector" being a grouping of related processes, sources and sinks, which constitute GHG emission and removal estimates) identified by the IPCC for the purposes of accounting and reporting under the UNFCCC regime. The five main sectors under the international climate change regime are: energy; industrial processes and product use; agriculture, forestry and other land use (which includes LULUCF); Waste; and Other. The LULUCF sector covers anthropogenic emissions and removals of GHG resulting from changes in terrestrial carbon stocks. "Land use" refers to land practices that affect emission levels (e.g. forests); "land use change" refers to practices where the purpose of land use is changed (e.g. conversion from forest to cropland, and/or vice versa); and "forestry" refers to activities, which affect the amount of biomass in existing biomass stocks (e.g. (commercial) forests management, harvest of industrial round wood, etc.).
[2] Kyoto Protocol, adopted 11 December 1997, in force 16 February 2005.
[3] Paris Agreement, adopted 12 December 2015, entry into force 04 November 2016.
[4] Paris Agreement, adopted 12 December 2015, entry into force 04 November 2016, art. 13.

analyzed, i.e. how is the LULUCF sector being accounted for under the regulatory frameworks in the EU and in the RF? what are the gaps and challenges associated with the regulation of the LULUCF sector? (3) Thirdly, the presentation evaluates the 2016 proposals on further integration of the LULUCF sector into the (sub)national climate frameworks.[5] What is proposed to be changed? And what is the value of the proposed changes for forest regulation? (4) Finally, the concluding remarks bring the findings together. What are the forest-related challenges under the LULUCF sector regulation, which require further attention from policy makers?

Short Biography of the Author:

Yelena M. Gordeeva, is a PhD researcher at the Hasselt University, Belgium. The working title of her current research is "Forests under the International Climate Change Law". She holds a Master's Degree in Law from the Moscow Humanitarian Economic University, Russia. Yelena M. Gordeeva has completed internships at the Poznan University of Life Sciences in Poland, and the Alaska State Legislature, in AK, the USA. She has prior worked as a senior lecturer for the Vyatka State University in Kirov, Russia.

[5] European Commission, Proposal for a Regulation of the European Parliament and of the Council on the Inclusion of Greenhouse Gas Emissions and Removals from Land Use, Land Use Change and Forestry into the 2030 Climate and Energy Framework and amending Regulation 525/2013 of the European Parliament and the Council on a Mechanism for Monitoring and Reporting Greenhouse Gas Emissions and Other Information Relevant to Climate Change, COM (2016) 479 final, 2016/0230 (COD); RF State Duma, Federal Assembly of the Russian Federation, the 6th Convocation, Highest Ecological Council, Materials of the Meeting "Regulatory Measures on the GHG Emissions in the RF", 15 June 2016.

Session IV.C

PRESENTER: Robin Kundis Craig, Ph.D., J.D.
James I. Farr Presidential Endowed Professor of Law
University of Utah S.J. Quinney College of Law, Salt Lake City, UT USA

BRIEF BIO: My research focuses on all things water, including interdisciplinary work on the governance of water resources in an era of climate change and the water-energy-food nexus. I am the author, co-author, or editor of 11 books, and I have published over 100 articles and book chapters on this and other subjects. I have served as a consultant on water issues to the government of Victoria, Australia; the Council on Environmental Cooperation in Montreal, Quebec, Canada; to the Environmental Defense Fund; and to the River Network's Nutrient Task Force. I have also served on five National Research Council committees on water management issues in the Mississippi River and Texas's Edwards Aquifer. This presentation stems from a four-year, interdisciplinary grant project on Adaptive Water Governance sponsored by the National Social-Ecological Synthesis Center in Annapolis, MD, with funding from the National Science Foundation.

Annual EELF Conference 30 Aug – 1 Sept 2017
Sustainable Management of Natural Resources – Legal Approaches & Instruments

Abstract by
Tiina Paloniitty, Doctoral Candidate, University of Helsinki

Subtheme:
1° Water Management
(or 5° Ecological Sustainability – Fundamental Questions and Implications for Enviromental Law and Governance)

Scientific Solutions to Axiological Controversies: The 4-Faced Agricultural Runoff Regulation in the EU

Irrespective of the part of the environment in question diffuse pollution continues to pose a challenge to the regulator. Regarding waters, the EU has employed various regulative tools to tackle the dilemma of sustainable food production. Failures and successes of the approaches are scrutinized (Thesis 1) here resulting in outcome that when the deliberate regulative attempts fail, the issue in all its complexity is left for the scientists to untangle (Thesis 2). However, the grim reality can be mended by better considering the mechanisms with which scientific knowledge is produced (Thesis 3).

Twists and turns of the Common Agricultural Policy exemplify *the erratic regulator*, whose attempts to produce a financial instrument responsive to the changes in axiological climate appear susceptible to failures, as the track record of the Common Agricultural Policy reforms prove. Then again the EU Strategy for the Baltic Sea Region serves as an example of *the candid regulator*, who strives to invite all around the same table but grants no new instruments, legislation nor institutions to solidify or enforce the governance. The Nitrates Directive illustrates *the naïve regulator* deciding to ignore those scientific realities perceived too complex simplifying the dilemma as one consisting of pollutants and emissions but fails in complementing the solution with sufficient strictness.

Finally *the ambitious regulator* takes the demands for holistic and integrated water management seriously and issues the Water Framework Directive, whose normative nature remains equivocal for 15 years but which is then permanently shifted from the realms of management planning to the sphere of legally binding instruments in a single decision by the CJEU (The Weser Ruling C-461/13). The Member States must now secure that the quality of Union waters does not deteriorate and the authorities must act accordingly when considering authorizations of individual undertakings, given no derogation is granted. The assessment of derogation is founded on meticulous scientific ana-

lysis which regrettably encompasses axiological considerations in itself. Thus in the absence of determinate and efficient regulator the decision-making territory is conquered by the scientists, whose considerations shirk judicial review in the most (if not all) Member States.

However bleak the situation might at the face of it deem, reversing the story is feasible. Although the epistemologies of the science of contemporary environmental management and the law are mutually incompatible—the one cherishing uncertainty, the other calling for predictability—their practical implementations are surprisingly congruous. The results environmental modelling produces could be better exploited in both environmental permitting procedures and natural resources management planning. If it was also simultaneously acknowledged and accepted that modelling as a form of scientific scrutiny encompasses axiological choices, path towards better regulation of environmental management would be paved.

Paloniitty, Tiina, LL.M, Doctoral Candidate, University of Helsinki / Kone Foundation scholarship

Paloniitty's doctoral research, that will be submitted in 2017, examines the Union agricultural runoff regulation and adaptive water management governance. Paloniitty's work has been published in eg Journal of Environmental Law, Journal of Human Rights and the Environment and in edited book 'Water Resource Management and the Law'. Paloniitty has been visiting researcher at the National University of Singapore, University of New England and University of Western Sydney (NSW, Australia), and given presentations at several international conferences. At the Faculty of Law Paloniitty has taught environmental and natural resources law and also methodology of law to graduate students. Paloniitty has consulted the Ministry of Environment and city of Helsinki on water management and construction issues. For almost ten years Paloniitty has also held positions of trust in different scientific societies on environmental law, rural law, and comparative law.

Abstract for EELF 2017

Jussi Kauppila, Finnish Environment Institute
Helle Tegner Anker, University of Copenhagen

The role of permits in regulating livestock installations and manure spreading: lessons from Denmark and Finland

Livestock production and intensive application of manure is a major source of water pollution – not least in the Baltic Sea. In particular, careless spreading of manure on fields may cause heavy loads of nutrient emissions into ground and surface waters. Livestock installations and handling of manure as a necessary side product of livestock are often regulated through a mix of different instruments. In the EU, environmental permits are widely applied to regulate emissions from livestock production. However, the scope and function of livestock permits remains a controversial legal and regulatory question: should the permit only cover livestock installation (as a point source) and leave the application of manure (as non-point source) to be dealt with by general legal standards and economic instruments? This question is further stressed by the structural change in livestock farming and agriculture (specialization, increased farm size), technological developments around handling and using manure, but also political ambitions related to circular economy. Drawing from recent experiences in Denmark and Finland, we analyse the role of permits in regulating livestock production and management of manure.

Key words: livestock, manure, regulation

Jussi Kauppila is senior researcher at the Finnish Environment Institute SYKE. He works in the field of environmental regulation, currently emphasizing on issues such as diffuse water pollution, end-of-waste, “better regulation” and “regulatory burden”. He is specialized in the fields of water management law, waste management law, regulatory theory and regulatory impact assessment.

Helle Tegner Anker is Professor of Law at the Department of Food and Resource Economics, Faculty of Science, University of Copenhagen. She has specialised in environmental and planning law covering a broad range of topics, including access to justice, EIA, land use planning, nature protection, water quality and renewable energy with a particular focus on wind energy. Helle T. Anker has been appointed as member of several committees established by the Danish Government. Since 2003 she has been co-ordinator of the Nordic Environmental Law, Governance and Science Network.

Socio-ecological resilience of the agriculture regulation

By PhD Fellow Lærke Assenbjerg
Aarhus University, department of law

My contribution is about the use of the socio-ecological resilience approach in the analysis of the cross field of environmental- and agricultural law regulating the food production. Specifically, I will focus on legal issues related to an adaptive approach in law and how this approach fit with the rule of law i.e. flexible law vs. legal certainty for the farmers.

The theory of social-ecological resilience entails that the governance of socio-ecological systems must be flexible in order to regulate complex and unpredictable impacts on the ecological systems. Adaptive law is a legal instrument to ensure flexibility in law, which is needed when the conditions for the regulated area are changing. An example of a complex socio-ecological system is the farmer and the surrounding ecosystems, which are interdependent. The farmer relies on the ecosystem to provide the services she needs i.e. nutritious soil, water purification, pollinators, utility animal that keeps the field clean of harmful insects, plants etc. Therefore, social resilience of farming is depending on the ecosystem resilience. The resilience of the ecosystem relies on the farmer not to damage it with chemicals and too much fertilizer, but also to remove any invasive species that potentially will impact the functioning of the ecosystem. The law has to be adaptive to this interdependence.

The EU Common Agricultural Policy supports and regulates the agriculture industry. Farmers receive financial support if the farmers comply with the rules of cross-compliance, which imply environmental protection involving ecological focus areas, permanent grassland and crop diversity. In addition to these rules, agriculture is also regulated by EU environmental law, which entails that the member states have to implement and comply with directives such as the Water Framework Directive, Nitrate Directive, Habitat Directive etc. The EU environmental legal instruments include both general environmental quality standards and environmental goals. The Danish state must comply with e.g. water quality standards and the ecological requirements of natural habitats, which ultimately affects the predictability for the farmers' legal situation. In my opinion, one of the main issues in this concern is how to regulate the farming conditions so that legal certainty for the farmers is kept and respected, while also complying with EU environmental obligations and meeting the quality standards.

The Danish political Package on Food and Agriculture seeks to provide some farmers with an economic benefit of using more fertilizer. This will result in poorer water quality, non-compliant with EU environmental goals and therefore risks sanctions that might result in economic losses for other farmers. This is an example of a gap between legal regimes and the consequence is lacking legal certainty for the farmers.

A socio-ecological resilience approach in the cross field between environmental- and agricultural law calls for questions to be addressed: What is the consequences of the environmental obligations on state level in respect to the protection of farmers' interests and predictable legal situation? Is it possible to ensure adaptive law and legal certainty at the same time? Finally, are any legal instruments that ensures flexibility in law as well as the farmers' legal certainty?

Biography of Lærke Assenbjerg

I am a PhD fellow at Aarhus University, department of law. My research project is about the regulation of ecosystems and agriculture including the behavioral legal instruments used to protect the ecosystems. I am especially interested in legal issues related to this - such as the issues presented in the abstract, but also other issues related to implementation of EU law in Danish law, including the use of principles and the effect of the chosen organizational structure. I am also enrolled as a student in the master program cand.merc.jur.

Recently I have written an article about circular economy in law, which also is of interest to me. In my PhD project, I am likely to address issues concerning circular bioeconomy. The article is accepted in 'Tidsskrift for Miljø' and is currently in press.

The Nitrates Directive in Poland – (in)effective implementation and its impact on sustainable water management

Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (commonly referred to as the Nitrates Directive) is a key piece of EU legislation aimed at stopping excessive nitrates emission to the environment and resulting eutrophication of water bodies. It directly impacts fertilizing practices – an area crucial for agriculture, but also water quality and biodiversity.

Effective implementation of the Nitrates Directive meets multiple challenges on every stage: monitoring, policymaking, enforcement and evaluation. Due to the fact the Directive has a rather general character, the member states had a lot of flexibility and used a variety of legal tools to achieve the it sets goals set. The result was a wide range of strategies and policies, what encourages a comparative analysis in search for the best solutions. In this context, the paper will focus on the following issues:

I. Poland stands out among the member states for its persistent non-compliance with the Nitrates Directive. In spite of significant agricultural activity, it avoided effective implementation of the Directive since its accession to the EU in 2004. As a result, Polish rivers and lakes are largely eutrophic and increasingly unable to support diverse, resilient water ecosystems. Poland is also the primary polluter of the Baltic Sea, a water body with rapidly growing dead zones. Only after a lost case before the TJEU in 2014 Poland proposed changes which will enter into force in 2017.

II. The new legislation is a step forward, but it fails to apply the correct requirements. In particular, the following policy choices cast a shadow over its effectiveness and should be a concern if they are replicated in other EU member states:

- Obligations imposed on farmers are dependent in principle on the size of a particular farm. This approach is incorrect, since intensity of agricultural production and cultivated acreage are largely independent form one another. Furthermore, wording that exempts small farmers from obligations will derail efforts to limit nitrates emissions, since aggregated effect of fertilizing on many small farms will equal that of large producers.

- Lack of a parallel regulation of phosphates emission, often added by other member states, may prevent eutrophic processes from being stopped. Phosphorus contributes significantly to eutrophication and without simultaneous steps to tackle it, biodiversity and quality of water will dwindle.

- Narrow scope of obligation to produce and implement individual fertilizing plans taking into account soil quality, cultivated crops and agricultural practices. This very basic tool to prevent over fertilization should be obligatory for the majority of farmers who should receive adequate and science-based support while they prepare it.

III. Thus, it is unlikely the new law will bring about the necessary change. It might further jeopardize the safety of water supply and biodiversity. Poland should draw more from other states' experience and implement new, impactful policies that will be discussed in more detail.

BIO:

Biodiversity Lawyer at ClientEarth Prawnicy dla Ziemi, Polish branch of ClientEarth, a leading international environmental NGO which uses law to protect the environment. Works in the Wildlife Programme focused on ensuring robust and effective legal protection of nature and habitats in Poland. Actively advocates for more sustainable water and forests management due to their vital importance for conservation efforts. Holds degrees in law from the University of Warsaw (Poland) and the University of Poitiers (France).

Session IV.D

ANITA RØNNE is Associate Professor in Energy Law, Faculty of Law, University of Copenhagen. She is appointed by the Minister as a member of the Danish Energy Regulatory Authority; and as Chair of the Valuation Committee for neighbours to wind projects under the Law of Renewables. She holds the Chair of the Danish Energy Law Society and is a member and former chairman of the Academic Advisory Group, SEERIL, IBA. She is also a Member of the Committee on Climate Change of the International Law Association, and of the Study Board of North Sea Energy Law Programme (Universities of Oslo, Aberdeen & Groningen, funded by EU - L.L.L.P. She teaches within the area of energy law and climate change law. She has administrative experience from the Danish Ministry of Energy and as consultant under EU Commission and World Bank secondment (Eastern Europe, South Africa, Malaysia). She is an author and co-editor of Energy Law in Europe; Energy Security; Regulating Energy & Natural Resources (all Oxford University Press), Legal Systems and Wind Energy (Kluwer Law Int. & DJØF Publishing) and has drafted many book chapters and articles (in English and Danish).

Call for submission of abstracts
Annual EELF conference 2017 – Sustainable management of natural resources – legal approaches & instruments

Sanne Akerboom, LL.M. MSc.
Post doc Utrecht University 'Resilient Societies', Department of Law, Utrecht Centre for Water, Oceans and Sustainability Law

Rethinking natural gas; an approach towards a sustainable and responsible use of natural gas

Growing societies put pressure on natural resources. In the interest of future generations, and ourselves we need to determine how to manage natural resources in a sustainable manner that allows us to grow responsibly without causing unnecessary damage to the environment and natural resources.

The fact that gas is a natural resource too is somewhat overlooked. The protection of gas is less obvious than that of other resources such as animal species and clean water. First of all, it has a different value to humans, as it has merely relevance to society as a resource of energy; when it remains underground it becomes less important. Secondly, the very use of gas causes different problems, namely CO^2 emissions and, increasingly more important, earthquakes caused by extraction, which is evident in the province of Groningen in the Netherlands. Thirdly, the regulation of gas does not relate to the protection of gas a natural resource, but to the protection of other interests, such as the reduction of CO^2 emissions.

Using gas as a resource for energy is becoming more problematic but for some time to come we are likely to remain dependent on gas, as we have not fully developed alternatives. We moreover do not know precisely whether we become fully independent from gas as a resource for energy both now and in the future. At the same time, we need to determine whether that dependence would justify the exhaustion of a natural resource.

We therefore need to know if, and if so, how the protection of natural resources is applicable to gas. We will therefore examine the European and Dutch legislation on the regulation of protection of natural resources and determine whether and how this is applicable to gas. We will include regulation on the extraction and use of gas, including regulation on CO^2 emissions to determine the legal basis of the regulation of gas. On these grounds, we can determine if a separate legal instrument is required to protect gas.

To this end, we focus on the necessary balance between the need for protection of gas with our current reliance on gas for the generation of energy, at least whilst moving towards more sustainable generation resources. In this way, we expose the underlying narrative of the protection of gas combined with the negative consequences stemming from gas use, and the need for an increase in sustainable energy. The paper aims to show the discrepancy between several interests and the current regulatory framework and protection of these interests.

Biography Sanne Akerboom

Sanne Akerboom is a post doc at Utrecht University within the Faculty of Law, Economics and Governance, specifically in the project 'Resilient Societies' and focuses on the stimulation of sustainable energy. She finished her PhD about the tension between citizen participation

as a democratic principle and energy as high pressure governmental decisions at the University of Amsterdam and is awaiting her defence. She studied law (2010) and political science (2011) at the University of Amsterdam. She participated in several research projects on (sustainable) energy systems, with topics relating to smart grids, governmental decision-making, participation and system operators.

ABSTRACT

Saara Österberg, Finland

Ph.D. student (Law), M.Sc. (Admin),

B.Sc. (Geology)

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Environmental regulation supporting the development of mine water management

– case Terrafame Mine

The role of regulation in the development of mine water management is analyzed in this interdisciplinary case study. The study focuses in particular on the regulatory tools fostering development and correspondingly recognizing regulatory obstacles for development. The analysis of the case Terrafame Mine includes the development of managing mine waters from 2015 to 2017. Terrafame Ltd. is a Finnish multi-metal company producing currently nickel (Ni), zinc (zn) and cobalt (Co). Terrafame is a notable mine in European terms because it hosts the largest deposit of sulfidic nickel in Europe and also because of its cobalt production. Until to now there have been prominent problems in managing water balance in the mining area. Consequently, the development of managing mine waters has required considerable resources, in particular from environmental authorities. There have been notable subsequently realized uncertainties in EIA which preceded the first Environmental Permit of mining and for that reason the required practices and techniques differ from the originals. The development of new practices and techniques for successful mine water management has required lots of research and development which continues today under a development project launched by the mining company in 2015.

The uncertainties of mining projects that make the forecasting of effluents and environmental impacts difficult during EIA process are presented in the study from the point of natural science. The issue with research in this study is interdisciplinary and therefore, answering the question requires dialoque between sciences. On this basis, the sosiological and legal methods are used together in this study. In this study, the relationship of prevention control and supervision during the mining project is analyzed. It is a legal framework within the empirical results of the case is analyzed. The adaptive management approach is used to solve complex challenges of natural resource management. Qualitative analysis of empirical data of the case raises some mechanisms of the environmental regulation that have effects to adaptive management of mine waters. The research results achieved shows that the structural features of regulation and different ways of implementation have multiple impacts to the development of mine water management during the mining project.

SUBTHEMES: 1) Water management or 4) Raw materials and waste management

Saara Österberg is a Ph.D. student in environmental law in the UEF Law School (University of Eastern Finland) with a specialization in environmental regulation of mining. She received a M.Sc. (Admin) from the University of Tampere in 2007 and a B.Sc. (Geology and Mineralogy) from the University of Oulu in 2015. While studying, she has worked as a researcher on the project Environmental Monitoring Concept for Pulp, Paper and Mining Sectors. She is interested in the role of regulation in the development of mine water management. Her work examines the role of regulation in all stages of the mine life cycle from the exploration to the closure. Her dissertation will consist of case studies.

Session IV.E

Biography - Jukka Similä

Jukka Similä has been Research Professor in Natural Resources Law at the University of Lapland, in Rovaniemi, Finland since November 2013. Before that he worked for the Finnish Environment Institute as a Head of Unit (Policy Analysis). His research has focused on environmental law and particularly in questions concerning pollution, biodiversity, and natural resources. In these areas he has considered diverse problems related to regulation theory, such as criteria for evaluating environmental regulation; how to evaluate recently introduced regulatory instruments; the ecological effectiveness of regulation, identification and evaluation of the regulatory innovations; how regulation affects the technological development; what explains compliance with regulation; what empirical evidence tells about the functioning of the system of appeals; and how to develop law for ecosystem services. He has published jurisprudential books and articles particularly related to EU environmental law, nature conservation law and forest regulation.

The management of cultural heritage and nature: complementary or conflicting regulations?

Prof. dr. Geert Van Hoorick (professor University Ghent, Department for Public Law, Centre for Environmental Law)

Dra. Lise Vandenhende (researcher University Ghent, Department for Public Law, Centre for Environmental Law)

In our presentation, we will discuss in what way the protection of cultural heritage at European and national level can enhance biodiversity and nature management. Alongside the existing well-developed and obvious environmental legal instruments to protect nature and biodiversity, as well as enhance nature management, there are also less obvious legal instruments, which can have an effect on the protection and management of natural sites and biodiversity. For example, legal instruments relating to cultural heritage can affect the management of natural sites. After all, cultural heritage and nature are very closely interconnected. Almost every natural landscape in Europe and further afield is in one way or another influenced by human activity. Given this close interconnection, cultural and natural values often overlap. Despite the fact that the European Landscape Convention recognizes the integration of natural and cultural values ("'*Landscape' means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"*[1]), the legal instruments for cultural heritage protection have developed separately from the environmental legal framework for biodiversity and nature management. As a result, nature management regimes can collide with legal instruments for cultural heritage management. For example, a site can be protected as a special conservation area on the basis of the Habitats Directive, but can also be listed as a World Heritage Site or recognized as intangible cultural heritage. In Belgium, a site can be designated as a Natura 2000 site, in accordance with the Habitats Directive, as well as listed as a cultural landscape pursuant to the Immovable Heritage Decree.

The question arises as to whether, in such cases, cultural heritage management regimes should be considered as complementary to those relating to nature management. In many cases, this overlap will probably be a good thing because the protection of cultural heritage will enhance the protection of natural resources. However, another possibility is that both regulations can come into conflict with regard to management goals. By analysing several examples of overlapping conflicting and non-conflicting legal instruments and their legal consequences at a European and national level, we will determine how legislation resolves this conflict, e.g., by giving priority to one particular legal instrument. In the process, we will reveal whether and how legal instruments for cultural heritage protection and nature management and biodiversity can enhance each other.

[1] Article 1a, European Landscape Convention.

Short biography

Geert Van Hoorick (°1968) graduated at Ghent University, Belgium (Master in Law in 1991, Master in Town and Country Planning in 1993). His PhD in Law (Promoter: Prof. Dr. Hubert Bocken), entitled "Legal instruments for nature and landscape conservation", was awarded with the Belgian VDK-Award for Sustainable Development in 2001. From 2000 on he is professor in administrative, town & planning, and environmental law at Ghent University, Centre for Environmental and Energy Law (Director is Prof. Dr. L. Lavrysen). He is a member of the Faculty Board of the Law Faculty, and was the former ombudsperson of the Law Faculty (2010-2016). He gives courses in environmental law, nature conservation law, notarial administrative law, town and country planning law, heritage law, and animal law. Since 1990 he is also a lawyer. He was promoter of several scientific projects for the Flemish government (e.g. drafting legislation on landscape protection, forest management and nature conservation). He often publishes in environmental law, nature and landscape protection law, and town and country planning law (e.g. book about legal aspects of nature and landscape conservation, a manual on town and country planning and heritage law, and a manual on notarial administrative law). He is also a member of the IUCN Commission on Environmental Law, and the European Environmental Law Forum (EELF). He is president of the Flemish Society for the Protection of Birds (since 2013).

Lise Vandenhende is a PhD Research Fellow and Academic Assistant within the Centre for Environmental Law at Ghent University. Her PhD research concerns the creation of an elaborate framework for the legal selection of protection worthy immovable heritage in Flanders. Lise Vandenhende is a member of the Flemish Commission for Immovable Heritage. This commission advises the Flemish Government in decisions concerning the protection of immovable heritage in Flanders. She is also a guest lecturer at the Faculty of Design Sciences of the University of Antwerp and a member of the editorial board of the Journal of Environmental Law and Environmental Policy (Tijdschrift voor Omgevingsrecht en Omgevingsbeleid). Furthermore, Lise Vandenhende is a lawyer at Odigo (Ghent), as a member of the bar in Ghent, specialized in spatial planning and immovable heritage.

Karolina Karpus

Theme**: Landscape audit as a new instrument of landscape protection and management in Poland**

Subtheme of Annual EELF Conference 2017: *Sustainable management of natural resources – legal approaches and instruments*: **Biodiversity and Nature Management**

Abstract

Landscape as one of nature elements constitutes an object of protection and at the same time an object of politics and environmental law. Taking into account the fact that 'landscape' is not easy to define the formation of legal frames of protection and management of this element is an enormous challenge for national legislator. In general 'landscape' is 1) view, 2) space in the range of human sight. As a result, we can distinguish following landscapes: urban and rural, industrial and agricultural, lowland and mountainous. This space may be evaluated and on account of that following landscapes may be distinguished: natural and degraded, beautiful and ugly. In the Polish environmental law landscape is currently connected with nature protection (biodiversity). Historically, nature protection was already regulated in Poland in the interwar period (nature protection act of 1934), but the solutions concerning fully independent landscape protection appeared in 1970s, when in 1976 the first landscape park in Poland was created. The development of legal instruments of nature protection was particularly rapid between 1991 and 2004. However, it turned out that the existing instruments did not fully ensured effective landscape protection.

2015 was a turning point in Poland, when after numerous discussions on effective landscape protection the act which was supposed to fulfil the gaps was adopted. For example, until 2015 there was no legal definition of 'landscape' in Polish law. Ten years after the ratification of the European Landscape Convention some amendments were necessary. On 24th April 2015 the new act amending some other acts on account of strengthening landscape protection tools was passed. The act introduced new tools, i.e.: 1) new statutory orders and bans affecting landscape; 2) landscape audit; 3) strengthening of landscape protection in spatial planning acts; 4) limitation of outdoor advertising; 5) financial and legal measures. Special attention should be paid here to landscape audit.

Landscape audit meets objectives in two fields – spatial planning and management and environmental protection. Audit is a solution which is similar to environmental impact

assessment. Audit applies to the inventory of valuable landscape elements under the jurisdiction of Poland, the identification of threats in order to preserve the values of designated landscapes, and finally the development of proper preventive measures. Public authorities must conduct landscape audit for public money at least every 20 years. The procedure results in the resolution, which later affects spatial planning, nature protection and historical monuments protection instruments.

Currently, there is a preparation period to conduct landscape audit in 16 voivodships, which should end in September 2018 at the latest. The audit works are hindered because there is no executive act of the Council of Ministers precisely defining landscape audit. The act is in the project phase. As a new and complicated instrument, audit rose a lot of questions among society members as well as public administrative bodies. But one thing can already be said today, in the future audit will contribute to the organization of landscape issues in Poland and to better protection of this nature element.

Karolina Karpus (Biography)

Specialist in the field of public finance law and environmental law. Author and co-author of numerous works dedicated to Polish, European Union and international environmental law (e.g.: K. Karpus, G. Klimek, J. Maciejewska, B. Rakoczy, M. Szalewska, M. Tyburek, M. Walas, Prawo geologiczne i górnicze [Geological and mining law], Warszawa: LEX a Wolters Kluwer business, 2015; B. Rakoczy, K. Karpus, Ustawa o odpadach: komentarz [Act on waste; Commentary], Warszawa: LexisNexis Polska, 2013; Z. Bukowski, E.K. Czech, K. Karpus, B. Rakoczy, Prawo ochrony środowiska: komentarz [Environmental Law; Commentary], Warszawa: LexisNexis Polska, 2013). Leading editor of Polish scientific journal 'The Review of Environmental Law'. Member of EELF. Employed as an assistant professor at the Department of Environmental Law of the Faculty of Law and Administration of Nicolaus Copernicus University in Torun. Currently the main fields of her legal research are waste management, social participation in environmental protection, spatial environmental information and landscape protection.

Private individuals' contribution to the Nature protection

Subthemes related: Water, Biodiversity and Nature management; ecological sustainability.

1. A legal approach *by* private individuals with *consistency*. The worldwide ecological and social crisis demands concrete measures. It requires a stronger political will sit on citizen participation, which means physical persons and corporations from the angle of private law.
Landlord, field users as farmer, tenant, or association, those actors could substantially broaden the management or protection area by including simultaneously "ordinary biodiversity" whereas the Habitats Directive implementation is restricted to "rare and characteristic habitat types". It could also render another way of decentralizing, since in France the "Natura 2000" zoning measures demands most of the time the State representative's initiative.
Emblematic measures, often hyperlocalized, should be networked in order to ensure an ecological consistency: private individuals by their contributions should learn from each other and connect their operation. For example, measures should complete public authorities' action (learning from planning document, starting from environmental policies and then voluntarily take measures in management of natural resources).

2. A legal approach: from the reciprocity of *interests* to the *sharing* between private individuals. Environmental Law is increasingly leaning on contract and obligation law to induce, instead of forcing, private individuals to protect and manage natural resources.
Nevertheless, the autonomous will is fundamental in contract law. This will express itself in a legal act where private individuals should find an interest, namely a moral or economic concerns (affection, money or property).
When it comes to Nature protection, how does law respond to the principle of interests' reciprocity? For instance, we need to ask whose interests' these pond's restauration measures are being imposed for. On one hand, certainly to the ecosystems, but when this pond assumes a water regulation function, it also benefits, on the other hand, to an individual and collective interests. In fact, it prevents flood risks leading up to damage the persons or their properties.

3. Legal *instruments* within private individuals' grasp for *sustainable* management of natural resources. The deployment of legal instruments embroils at least one key concern: mastering the temporal and spatial framework. In fact, investing in measures such as restoration, (re)creation and enhancement of natural resources is one thing, ensuring a long-time conservation is another.
Relying on certain economic operators such as companies specialized in the ecological compensation with personal obligations *in faciendo* or *in non faciendo* could weaken the operation of managing and protecting nature resources as well.

Thus, the “environmentalist doctrine” draws mechanisms from the property law such as environmental lease with an environmental *clause list*.

The most interesting instruments for Nature protection are real rights, connected to the soil. Easements are as perpetual as the soil, and real obligations (called *propter rem* obligation).

Unfortunately, legislative intervention can significantly lessen the legal scope of property law mechanisms. For example, forcing the parties of the contract to indicate the duration of the obligation, breaking the idea of perpetuity (Environmental Code, a. L 132-3) and the principle of freedom of contract.

BIOGRAPHY

Sarah FAGNEN
25 years old
Phd in Law candidate,
Laboratory SAGE (Societies, Actors and Governement in Europe)
Work group 2: "Environment, health, science & society"

Thesis title: ***"Private individuals' contribution to the protection of Nature"***

My research focuses on how private individual protect and manage ecosystems and natural resources such as water, drawing from the fields of contract, property, environmental, and administrative law on a national level. My interest includes private individuals' cooperation on the border area of the Northern Vosges Regional Natural Park (France) and Palatinate Forest Nature Park (Germany).

I hold a law degree from the University of Reims Champagne-Ardenne and a Master degree in public and private Law (environmental and risks) from the University of Strasbourg. During six months I served as an intern for an environmental inspector in soil pollution services at the Regional Rnvironment, Planning and Housing Agency of Alsace (DREAL Alsace).

Session V.A

Sustainable management of natural resources by the EU

Ludwig Krämer

It is often assumed that the management of natural resources is to be ensured by public authorities at national, regional or local level. However, since the legislation on the management of natural resources is, to a considerable part, elaborated at EU level, the management of that legislation and, subsequently, of the natural resources themselves, also has a European dimension. Often, EU legislation is seen as "foreign" legislation, which does not fully fit into the management system established within an EU Member State, and the management of which is left to the EU institutions.

This contribution tries to perceive the EU space as an area in which the vast coordination of legislation concerning natural resources also requires cooperation and coordination in the management of these resources. It intends to examine the management activities, as regards the four subsections of the topic - water, biodiversity, air quality and raw materials and waste - , by the European institutions, mainly by the Commission. The contribution will in particular attempt to address the following aspects: the interplay of national and EU management activities; transboundary management; instruments of EU management activities; coordination, transparency in and accountability of the management systems; coherence in the management activities; enforcement of management decisions; management costs; public management and civil society; sustainability of the system; lacunae of the system.

Ludwig Krämer

Studies of law and history in Kiel, München and Paris (ENA). Judge at the Landgericht Kiel (1969 till 2004). Official of the Commission of the European Community, environmental department (1972 till 2004), successively responsible of legal and enforcement issues, waste management and environmental sustainability. Retired from both functions.
LL.D University Hamburg. Visiting Professor at University College London. Lecturing activity on EU environmental law in more than 60 European and North American universities. Director of an environmental law consultancy “Derecho y Medio Ambiente” in Madrid. Specialisation: EU environmental law (publication of some 20 books and more than 260 articles on that subject).

Environmental liability as a back-up tool for managing natural resources: how to fill the gap?

Marjan Peeters (professor of environmental policy and law)

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(text below = 500 words)

The EU has established an environmental liability regime that aims to prevent and restore environmental damage to water, nature and soil. However, one of the short falling elements of the directive is its weak provision on financial security: Member States only have to take measures to "encourage" the development of financial security instruments and markets, including financial mechanisms in case of insolvency.[1] The aim of financial security is that operators can cover, financially, their responsibilities for the prevention and remediation obligations under the Directive. If no funds are available, the cost of restoring environmental damage will fall on the governmental budgets, if sufficient governmental budget is anyway available. This increases the risk that full and costly restoration, or compensation, of environmental damage of natural resources will not take place in practice.

In the meantime, at the national level, some experiences have been gained with financial security approaches. Many different forms of financial security exist, and the decision to oblige an operator to take a financial security is (at least to Dutch law) a decision that has to be taken in the ambit of administrative law. This presentation will discuss Dutch administrative law experiences with the possibility to include, into an environmental permit, a financial security obligation for the operator (the results stem from a contract-research for the Ministry of the Environment that examined the practice of provinces and municipalities with imposing financial securities). It will shed a light on several complexities with which the permitting authorities may be confronted when during the permit procedure consideration has to be given of the potential environmental damage, and, in relation to that, the financial

[1] Article 14 of the Environmental Liability Directive

security that the operator has to arrange. Finally, the presentation will shed a light on actual political circumstances that determine whether and how the legislative framework will provide possibilities (or obligations) for permitting authorities to include financial securities into environmental permits. While the legal possibility to impose financial securities as a permit condition has been withdrawn from Dutch environmental legislation a couple of years ago, there is – recently - a new wave of arguments asking for firmly re-introducing the competence of authorities to include financial securities into the permit conditions. The reasons for this renewed attention, and actual developments in the legislative framework, will be explained. Will this lead to a more effective liability regime, in the sense that financial gaps at the side of the operator will be avoided so that eventual damage to natural resources will be well restored or remediated?

Post scriptum

It is the view of the author that prevention of damage is key. Nonetheless, in practice we are confronted with immense and severe accidents that have seriously damaged the environment, with insufficient financial capacity at the side of the operators. This illustrates the need to put attention to more preventive action (not only administrative rules, but also strong liability regimes may have preventive effect) but also to how to deal with the situation that damage has occurred.

Biography

Marjan Peeters is Extraordinary Professor of Environmental Policy and Law at Maastricht University. She defended in 1992 her PhD on emissions trading at Tilburg University, which was the first PhD in Europe providing a legal analysis of this market based instrument. From 1993 to 2001 she served as lawyer with the Dutch Ministry of Water Management and Transport. After having gained ample practical experience with permitting, enforcement and policy advice, she moved to Maastricht University.

Marjan has co-edited more than 6 books in the field of EU environmental and climate law. The latest book is *Climate Change Law* (Edward Elgar 2016, co-edited with Daniel A Farber) containing 56 chapters each devoted to a specific topic relevant for understanding climate law. At Maastricht University, Marjan leads several master and bachelor courses. Furthermore, Marjan is connected for one day a week to the International Centre for Integrated Assessment and Sustainable Development (ICIS) at Maastricht University.

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The transposition of the Environmental Liability Directive in Member States: the significance of threshold, the scope of application and issues related to the choice of liability such as exemptions and defenses.

By Sandra Cassotta

Member States had until 30 April 2007 to bring the provisions of this Environmental Liability Directive 2004/35/EC in force, so now it is possible to evaluate the implementation process. For this purpose, it must be recalled that the ELD is the result of a long process the EU Commission had studied and debated the concept, and an EU legislative scheme establishing the basic criteria for environmental clean-up and liability for more than 18 years. It is the result of a lot of thought and discussions. This presentation will focus on three selected focal points of the ELD only: I) the definition of environmental damage and the concept of threshold contained on it; II) the scope of application; and III) issues related to the choice of liability, specifically exemptions and defenses.

The presentation will stress that the ELD is the result of different compromises at political level and the text of the ELD is very diplomatic, is not explicit not even on some core focal points of the whole new environmental liability regime that it wanted to introduce, like the strict liability.

Also, it will be stressed that the order of exposition of these focal points is not casual, but must be considered in a chain of logical sequence. If the first focal point, which is the definition of environmental damage, changes, all the others will change too, resulting in a “domino effect”. It will be then explained and concluded why and how the definition of environmental damage and the concept of threshold should be changed, thus changing all the other focal points, to make the ELD more effective and reach harmonization.

Sandra Cassotta is currently Associate Professor in International Environmental Law with Focus on Arctic Issues at the Department of Law of Aalborg University, and teaches Climate Change & Energy Law, Environmental Law and EU Law and Arctic Governance. She specializes in environmental damage and liability problems in a multi-level context. Included in her area of interests are human rights, law of the sea (UNCLOS), and environmental security (particularly that of the Arctic Ocean). She is also Lead Author for the Next Reports for the Polar Regions (Arctic and Antarctic) at the Intergovernmental Panel on Climate Change (IPCC) – United Nations Environmental Programme (UNEP) 2017-2020. She is currently Adjunct Professor in Law at the School of Law of Western University (Sydney) at the International Centre of Ocean Governance), non-resident Research Fellow at the Institute for Security and Development Policy in Stockholm working under the ISDP's Sino-Nordic Arctic Policy Program (SNAPP) and Fellow at the Sustainability College Bruges - SCB (Belgium).

Cross-cutting theme 'Ecological sustainability – fundamental questions and implications for environmental law and governance'

Addressing threats to ecological sustainability: strengths and weaknesses of EU environmental criminal law

Grazia Maria Vagliasindi

The violations of EU environmental law - such as e.g. the deterioration of a protected habitat, illegal wildlife trade, illegal waste management and shipment, illegal discharge into the water - are a threat to ecological sustainability, thus undermining the objective of a high level of environmental protection in accordance with the principle of sustainable development set out in the Treaty on the Functioning of the EU as well as in the EU Charter of Fundamental Rights.

Among the various legislative and policy responses to such violations, this paper focuses on the role of environmental criminal law. The paper analyses potential and limits of EU environmental criminal law, and particularly Directive 2008/99/EC on the protection of the environment through criminal law and Directive 2009/123/EC on ship-source pollution, in deterring, sanctioning and remedying violations of EU environmental law and national implementing provisions. The paper also takes into account relevant legislation on organized crime (which is often involved in the commission of environmental crimes).

The paper shows that the administrative dependence that characterizes environmental criminal law first of all requires clear environmental administrative legislation for the criminal law provisions to play their deterrent effect against conduct which endanger or harm natural resources; also the fact that administrative environmental law is where a balance is found between economic and environmental needs should be underlined, particularly when considering economic actors like corporations.

The paper also shows that, while the added value of criminal law in environmental matter is not uncontroversial in the literature, the approximation of environmental criminal law of the Member States, brought by the transposition of the above mentioned directives, has to be positively assessed as it concerns environmental violations which are transnational as to their nature or effects, as it has to be positively assessed the introduction of mechanisms to hold legal persons responsible for the environmental crimes committed for their interest or to their benefit. However, with regard with environmental crimes of transnational nature (e.g. the illegal shipment of waste) approximation of sanctions, currently not provided by the directives, is also necessary; this could be done at the EU level through a directive or through soft law instruments.

Finally, the paper shows that criminal law should not work in isolation, since other legal instruments (for instance those on environmental management systems and those on environmental liability) are relevant in terms of preventing, sanctioning and remedying illegal conduct which

threaten ecological sustainability; thus better coordination should between instruments should be ensured.

Short biography

Grazia Maria Vagliasindi is researcher in criminal law at University of Catania, Italy, Department of Law. She holds a Master in Environmental Law and a Ph.D. in Italian and Comparative Criminal Law. Her teaching and research experience encompasses criminal law and environmental law. From December 2012 to March 2016 she was scientific responsible for University of Catania for the FP7 research Project EFFACE (European Union Action to Fight Environmental Crime, coordinated by Ecologic Institute, Berlin). She conducted research at University of Toronto, *Instituto Ortega y Gasset* of Madrid and University of Sousse. She was adjunct member of the Ministerial Committee for the transposition of Directive 2008/99/EC and Directive 2008/99/EC in Italy. She is author of several publications on environmental criminal law. She participated as invited speaker or presenter in numerous conferences, including the II AIDP World Conference on the Protection of the Environment through Criminal Law (Bucharest, 18-20 May 2016).

Romanian Ecocentrism and EU Legislation on Environmental Protection - A Criminal Law Perspective

Senior Lecturer MAGDALENA ROIBU[1], PhD
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Abstract

The topic of the paper falls within the general ***Ecological sustainability*** theme, but also addresses the subtheme of ***water management*** (the pollution management issue).

Apparently, Romania has efficiently transposed 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. Practically, this ecocentrism-based ethic is far from being genuinely concerned for environmental issues.
The present article aims at critically analyzing some sensitive aspects of Romanian Act no. 101/2011 on the prevention and criminal sanctioning of environmental offenses, which transposed the above-mentioned Directive.
The streamlines of the critical approach are the following: 1. the provisions of said Act overlap and inevitably conflict with other preexistent national laws (e.g. Government Ordinance no. 195/2005, Water Act no. 107/1996, and even certain offenses provided under the New Romanian Penal Code); 2. the proportionality principle is disregarded, thus certain offenses under Act no. 101 are sanctioned more severely than counterpart crimes in the Penal Code (e.g. water contamination, set out by art. 356 Penal Code, is punishable by an imprisonment term from 6 months to 3 years or a fine, while art. 8 para 2 of Act no. 101 provides a penalty of imprisonment of 1 up to 5 years, and no alternative fine); 3. although the examined Act provides criminal sanctions, punishable by an imprisonment term of up to 7 years, national agencies usually inflict civil fines on offenders, and no conviction based on Act no. 101/2011 has been ruled so far by a criminal court. Case-law on the enforcement of preexistent legislation containing criminal provisions in the matter is also scarce (e.g. Government Ordinance no. 195/2005, specifically the non-compliance with prohibitions on the use of plant protection chemicals and fertilizers on agricultural land). Moreover, district courts usually place defendants - natural persons - under judicial control). No criminal conviction was ruled against legal persons for any breach of Act no. 101/2011. Nonetheless, prior to the enactment of Act no. 101, Romania was convicted by the European Court of Human Rights for the authorities' failure to take appropriate steps in order to avoid and remedy environmental pollution perpetrated by corporate offenders (cases of *Tătar v. Romania*, 27.01.2009 and *Băcilă v. Romania*, 30.03.2010). The article accordingly discusses the

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arguments invoked by the ECtHR, concluding to a violation of article 8 of the European Convention.

Key-words: Directive 2008/99/EC, Act no. 101/2011, water pollution, corporate liability, ECHR case-law against Romania

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As part of my academic career, between 2002- March 2017, I have taught courses of Legal English, Criminal Procedure and Criminology at the Faculty of Law (West University of Timisoara), one of the best state faculties of law in Romania. Additionally, I have worked as an attorney-at-law practicing especially in criminal law cases, but also in commercial law cases, in a local-based law firm.
Currently, I work within the Schoenherr law firm (a leading law firm in Central-Eastern Europe) - the Bucharest office, which advises mainly foreign investors on the complete range of corporate and commercial legal issues, with an emphasis on corporate, finance and real estate law. The Bucharest office is also active in a large number of environment law projects, and other innovative branches of law.

Session V.B

Dr. Maria Pettersson is a Professor in Environmental and Natural Resources Law. Pettersson's research is primarily focused on the function of law in relation to the management and utilization of natural resources, often considering climate change. Her previous research includes: forest governance with a focus on climate adaptation in areas such as water management, biodiversity protection and control of invasive species; planning and permitting processes for industrial activities such as mining and energy installations, including the development of renewable energy as a possibility to mitigate climate change; and flood risk governance in a European perspective.

Abstract for the "Sustainable Management of Natural Resources - Legal Approaches and Instruments", EELF Conference

The Greening of the European Common Agricultural Policy: Towards Sustainable Agriculture in England and Wales

Dr Ludivine Petetin

Early Common Agricultural Policy (CAP) reforms have led to environmental degradation by favouring the utilisation of external inputs through price and production support. Over the last two decades, to enable sustainable growth in agriculture and achieve a greater consistency between agricultural, agri-environmental and environmental strategies, the EU has established and reinforced overarching frameworks, principles and programmes addressing both environmental and rural development goals. The paper will scrutinise the role and impact of environmental measures under EU Law and under the CAP to achieve sustainable agriculture.

First, it will assess the role played by the variety of existing instruments and approaches employed. The EU relies on a wide range of policy and regulatory measures (including complementary mandatory requirements and voluntary schemes) applicable at different levels (local, regional and national). This mix of policy and regulatory instruments ranges from the traditional 'command and control' approaches to newer and innovative tools, like cross compliance and agri-environmental schemes. They aim to provide adequate conditions to enable a more coherent and holistic approach geared towards delivering sustainable agriculture.

Second, the extent to which these measures prove efficient and effective in expanding environmentally-friendly farming practices decisively contributing to the future of the rural environment and achieving a greener agriculture will be assessed by focussing on their implementation in two different systems, England and Wales. The level of application of these instruments is critical. The paper will evaluate how the adaptation and sometimes appropriation of EU legislation and CAP-related measures in England and Wales have permitted the recovery of targeted species and habitats by expanding environmentally-friendly farming techniques based on local needs.

Subthemes:
2) Biodiversity and Nature Management
5) Ecological sustainability – fundamental questions and implications for environmental law and governance

Ludivine Petetin

Ludivine Petetin is a Lecturer at the School of Law of Cardiff University in the United Kingdom. Dr Petetin's research focuses on the policy, law and regulation of food, agriculture and environmental protection. In particular, she is interested in food security, agri-technology, sustainable agriculture, rural development, and investigates public participation and governance issues. She has published, presented her work both nationally and internationally and has been awarded funding to undertake research in these areas.

Ludivine holds postgraduate degrees from Paris II Panthéon-Assas in France, the University of Glasgow and the University of Leeds in the United Kingdom. She has been a Visiting Scholar at the Department of Agricultural and Consumer Economics of the University of Illinois at Urbana-Champaign (USA), the College of Agricultural and Environmental Sciences of the University of Georgia (USA), and a Visiting Lecturer at the Sant'Anna School of Advanced Studies (Italy). She currently serves as the British Deputy National Delegate to the Management Board of the European Council for Agricultural Law (CEDR).

10th March 2017

EELF 2017 CONFERENCE - COPENHAGEN

Paper abstract –

by Luchino Ferraris

THE ACHIEVEMENT OF ENVIRONMENTAL PROTECTION IN THE EU AGRICULTURAL SECTOR

In the last three decades, the European Union has been trying to integrate environmental protection in the design of the Common Agricultural Policy (CAP). The most recent step of this path is the 2013 CAP reform, which for the first time provided for both a set of "*greening measures*" in Pillar I and for additional funding for more targeted, project-based agri-environmental measures to be adopted within Pillar II. However, the final environmental delivery of the 2013 CAP reform appears to be very weak. More generally, European agriculture seems far from having achieved remarkable sustainability targets, particularly with regard to the fight against climate change.

After having argued on the lack of substantial environmental delivery in the 2013 CAP reform, my projected contribution aims at investigating – from a legal perspective – the matter of whether and to what extent the EU constitutional framework fosters (or hampers) the adoption of environmentally sound measures in the field of agriculture.

Such an assessment implies touching upon two main problems. On the one hand, there is no mention of environmental protection amongst the objectives that ought to be pursued in the EU agricultural policy (Art. 39 TFEU). Therefore, the legal and/or political impact of such a shortcoming in the wording of the treaties on agricultural secondary legislation needs to be discussed.

On the other hand, the integration principle ("Environmental protection requirements must be integrated into the definition and implementation of the Union policies and activities, in particular with a view to promoting sustainable development" - Art. 11 TFEU) has in theory a great potential to bridge this gap. Indeed, such a tool could both enhance judicial review by the ECJ on secondary legislation which is not respectful enough of sustainable development and foster the environmentally sound interpretation of such pieces of legislation. However, at least as regards the ECJ judicial review, it would appear that the principle of integration has hitherto not been given enough weight and has proved to be unable to boost environmental protection.

A closer examination of this topic shows that environmental concerns are still overall marginal in the shaping of EU agricultural policy, mainly remaining ancillary to production. Only strategic reasons – particularly those to make the CAP compliant with the WTO - induced the EU to undertake a "greening" of its agricultural policy, while effective "greening" still has to begin.

Biographical note – Luchino Ferraris

After having graduated 110/110 *summa cum laude* at the School of Law of the University of Milan, I did an LLM in "Global Environment and Climate Change Law" at the University of Edinburgh School of Law with a dissertation on the "Greening Measures" of the 2013 EU Common Agricultural Policy, which was worth a First-class Distinction.

As regards my practical experience, I worked for several law firms in the area of administrative law, criminal law, environmental law and food law in Milan and Pisa, for a legal research project at the University of Edinburgh (the "BENELEX Project") and for an environmental NGO based in Cape Town. In October 2013 I successfully passed the Italian bar-exam.

I have now undertaken a PhD at the Sant'Anna School of Advanced Studies (Pisa) with a research project on sustainable agriculture in EU law. Further information is available upon request.

Ecologically sustainable management of natural resources and agriculture in Switzerland – Balancing constitutional requirements and free trade agreements

Sian Affolter

Agricultural policy and the protection of natural resources are closely interlinked with agriculture being one of the most important players when it comes to the latter. Certain instruments and mechanisms are thus indispensable in the agricultural sector to guarantee the sustainable management of natural resources. Notably, the Swiss Constitution foresees the obligation for the Confederation to ensure that the agricultural sector, by means of a sustainable production policy, makes an essential contribution to the conservation of natural resources, whilst at the same time also containing separate provisions regarding sustainability and the protection of the environment.

However, playing a part in ensuring the sustainable management of natural resources is evidently not the only objective of the agricultural policy. On the contrary, a declared aim of the Swiss government is to obtain comprehensive access to foreign agricultural and food markets, which calls for the conclusion of new or the further development of existing free trade agreements (first and foremost with the European Union with whom negotiations have been going on since 2008) in said markets. This, in turn, implies the abolishment of all tariff as well as non-tariff barriers. National regulations aiming at ensuring sustainable management of natural resources can constitute such non-tariff barriers and, if this is the case, would therefore need to be aligned in both jurisdictions, thus possibly implying an obligation for one party to lower its standards of ecological protection. Furthermore, despite not being legally bound, the conclusion or further development of free trade agreements could pressure the legislator to lower national standards of protection due to economic considerations. Finally, it could deprive the legislator of the possibility to increase the level of protection in the future. Given the mentioned constitutional provisions, the question arises whether the conclusion or further development of free trade agreements in the agricultural sector is, in such cases, to be regarded as constitutional.

The present paper examines this question by analyzing the concrete requirements emanating from the Swiss Constitution and, by means of example, looking at what this entails for the conclusion of a free trade agreement in the agricultural sector with the EU. It is discussed, in particular, what measures or instruments could be adopted in or in connection with free trade agreements to prevent the emergence of situations of conflict with the constitution. In this context, the introduction of environmental chapters in free trade agreements or the obligation to unilaterally adopt accompanying measures could arguably constitute a condition set forth by constitutional provisions. Based on the Swiss example, the present paper therefore aims to outline a normative framework for an approach based on domestic constitutional law to strengthen the sustainable management of natural resources with regard to free trade agreements in the agricultural sector.

Related subtheme:

Ecological sustainability – fundamental questions and implications for environmental law and governance

Main theses:

1. The conclusion or further development of free trade agreements in the agricultural sector can, under certain circumstances, constitute a breach of constitutional requirements regarding the sustainable management of resources.

2. Constitutional requirements regarding the sustainable management of resources can influence the content of a free trade agreement or necessitate the provision of accompanying measures ensuring the level of protection does not decrease.

Short Biography:

Sian Affolter studied law at the University of Fribourg, Switzerland, and is currently working as a research assistant in the fields of constitutional law and EU law and as a PhD student, under the supervision of Prof. Astrid Epiney, at the Institute of European Law at the University of Fribourg. Her research mainly focuses on agri-environmental law in Switzerland and the EU as well as on the bilateral relations between Switzerland and the EU.

Session V.C

ANNUAL EELF CONFERENCE 2017

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – LEGAL APPROACHES & INSTRUMENTS

WATER: A COMMON TREASURY

PROFESSOR ROSALIND MALCOLM AND PROFESSOR ALISON CLARKE (Environmental Regulatory Research Group, School of Law, University of Surrey)

ABSTRACT

This paper addresses the theme of water management and the cross-cutting theme of ecological sustainability. It is concerned with fundamental questions of property rights in water and the implications for environmental law and governance regarding the management of water. It argues that water is part of a common treasury as exemplified by Winstanley: 'In the beginning of time the great Creator Reason made the earth to be a common treasury', (1649). The basis of this argument is that none are subject to another's authority so the world is held in common and the inequality that is the inevitable consequence of private property is unjust because it results in partiality in relation to a natural resource which is a necessity of life. The paper argues the case from a metaphysically neutral perspective: equality (our moral independence) is inconsistent with private property and even where labour is added to water that does not justify inequality of treatment or the diminution of water as a common treasury. In arguing that water is a common treasury and not a commodity which is subject to private property rights and can be bought and sold with profits taken, the paper considers the property rights which enable water to function as a common treasury. The paper also considers whether this argument can be applied to other natural resources which arguably form part of a common treasury (Winstanley - 'the Earth') such as the Arctic, Antarctic, moon, Sun, forests, oceans, oil, minerals …. and food. The paper argues that water is part of a common treasury because it is special, both because of its physical characteristics, and because of its perception by communities who view it as a natural resource to be preserved for future use under sustainable development principles including as a human right and a necessity of life. These physical characteristics encompass the nature of water as part of a unique non-renewable yet finite cycle. The community perception includes, for example, the European Citizens' Initiative on the right to water; the Italian referendum on municipalisation of water resources and management; and various European cities' approaches to water management. The paper concludes by arguing that we need to adjust our framework of property rights in water so as to uphold rather than undermine this essential nature of water, recognising the central role to be played by communal property in its various forms and the redundancy of private property rights.

SUB-THEME: Water management

CROSS-CUTTING THEME: ecological sustainability of water and issues relating to the governance of water.

Rosalind Malcolm, LLB (Hons), PhD, Barrister, (Head of School: 2005 – 2010) is Professor of Law and Director of the Environmental Regulatory Research Group in the School of Law, University of Surrey. Currently co-investigator of 2 FP7 EU multidisciplinary research projects, she is part of the research community at the University of Surrey which was awarded the **Queen's Anniversary Prize for Water and Sanitation** in 2012 for its collection of research work in these fields. Publications include: Ayalew, Chenoweth, **Malcolm**, Okotto, Pedley, *"Small Independent Water Providers: their position in the regulatory framework for the supply of water in Kenya and Ethiopia"* Journal of Environmental Law 2014 26 (1): 105-128. (Joint winner of Richard Macrory Prize for best article in the Journal of Environmental Law (2014)) and Ayalew, Chenoweth, Kaime, **Malcolm**, Okotto, Pedley, *"*Water Law, Human Health and the Human Right to Water and Sanitation" in Lankford, Bakker, Zeitoun, Conway, (eds), *Water Security: Principles, Perspectives and Practices,*(2013 Routledge).

Groundwater Governance and Property Rights
– Applying OECD water governance principles –

Gabriela Cuadrado-Quesada[1] & Thomas Hartmann[2]

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Precise Topic: Groundwater Governance

Related Subtheme: Water Management

Short description of the content

Groundwater becomes increasingly a scarce resource. This raises conflicts of interest by different users who exploit groundwater for many different purposes: drinking water, irrigation, or commercial activities and industria purposes. Such intense use of groundwater creates or aggravates problems such as scarcity, water quality, conflicts of use, pollution, land subsidence or uplift due to rising groundwater levels, etc. Ultimately, these are examples of conflicts and tensions between the use of land and groundwater use. This paper will discuss groundwater governance issues with a focus on land use conflicts and property rights.

The objective of this paper is to discuss the challenges and possible solutions to groundwater governance that emerge from a property rights approach. Principles of governing the commons are difficultly to apply for groundwater issues, because its large scale, difficult forecast and monitoring, and only indirect ability to influence groundwater. Studies often focus on groundwater issues in isolation e.g. irrigation. Comprehensive approaches to groundwater governance are still limited. Which institutional, legal, and economic conditions help implementing sustainable groundwater governance? It remains unclear how to embody relevant governance and management tools such as groundwater plans and its interaction with broader planning instruments.

One of the reasons why this is difficult is that conflicts over the use of groundwater resources ultimately unfold as issues of property rights. There is, namely, a tension between the legal title and groundwater. Different legal systems in various countries as well as different uses of groundwater foresee different 'social constructions' of groundwater in terms of property rights. Sometimes groundwater belongs to the private property of land, sometimes it is a public good. However, to implement groundwater governance and solve the conflicts of using it, the rights to use it need to be clearly defined. So, there is a tension between the property rights of land and

groundwater. This is in part a question of the social construction of groundwater and land (i.e. who is liable and who has access), but in part it is an environmental constraint (i.e. a private land user cannot fence his or her groundwater). Basically, property rights are essential for understanding but also resolving conflicts around the use of groundwater. This paper will explore the relation between groundwater governance and property rights.

Therefore, key criteria for good groundwater governance are used as an analytical framework. The OECD water governance principles have been adopted recently and are commonly accepted within OECD. They contain 12 principles categorized under effectiveness, efficiency, and engagement & trust. Thus, different cases from different parts of the (OECD) world with different groundwater issues will be analyzed and compared in terms of the property rights issues and social constructions of land and groundwater. The tensions and governance challenges will then be discussed along the OECD principles. As a result, a discussion on groundwater governance and property rights will explore the issues and further research gaps.

Short Biography of authors

Dr Gabriela Cuadrado-Quesada

Dr Gabriela Cuadrado-Quesada is a postdoctoral researcher at UNESCO-IHE, Delft, The Netherlands. She completed her PhD at the Faculty of Law at the University of New South Wales (UNSW) in 2017. She obtained her Law Degree at the University of Costa Rica and worked in Costa Rica as an environmental lawyer for several years. She has co-authored various books including *Elements for the Discussion of the Access to Water as a Human Right in Costa Rica*; and *Protecting Today the Water for Tomorrow: Successful Community Based Experiences*. She has also published a number of articles including *Groundwater governance and spatial planning challenges: examining sustainability and participation on the ground*; *The Recognition of the Right to a Healthy Environment in the International Treaties and in Costa Rica's Law*; and *The Legalization of Water's Pollution in Costa Rica: cases of Diurón and Bromacil*.

Dr Thomas Hartmann

Dr. Thomas Hartmann is assistant professor at the Dept. Human Geography and Spatial Planning of Utrecht University. He has a special expertise and research interest in: (1) Land and water governance, with a focus on risk management of river floods, (2) Land policies and planning instruments, with a focus on property rights perspective, and (3) Planning theory, with a specialization in aspects of justice and ethics in the city. Thomas Hartmann is also the current vice president and founding member of the International Academic Association on Planning, Law and Property Rights (www.plpr-association.org). Thomas Hartmann is also affiliated with the Czech Jan Evangelista Purkyne University (UJEP) in Usti nad Labem, Faculty of Social and Economic Studies. During the winter semester 2015/2016, Thomas Hartmann was guest professor at the University of Vienna, Department of Geography and Regional Research, where he worked on "Justice in the City" and "Land Policy for Scarce Resources". Currently he is working on a book on "Instruments of Land Policy – Dealing with Scarcity of Land" and he has edited "Planning by Law and Property Rights Reconsidered" with Barrie Needham.

Gunnhild Storbekkrønning Solli

Does ownership to water matter anymore? A peak into European models of ownership to groundwater and some of their implications

Even though we all need fresh water and water is regarded as a human right, we do not all own the property right to this resource. Different approaches to water rights and regulation of water have evolved in national law. Some cultures understand water as communal assets to be used for the benefit of the community as a whole whilst other cultures regard water as a private right for the landowner to enjoy. In Europe today, five different models of ownership to groundwater exist – several within the same jurisdiction. At the same time, natural resources and environmental issues in general are to a large extent regulated in national law imposing restrictions on the property rights. In this time of public administration of groundwater resources – does ownership still matter?

There is a growing concern worldwide about water scarcity and sustainable use. Globally, groundwater accounts for 95% of all freshwater available. In several countries, groundwater is therefore the main source of drinking water. Since the 1970s the attention to groundwater has increased due to overexploitation or degradation of the surface water. Given the importance of groundwater, it is interesting to note that two European countries in the same period of time established two different groundwater property models - Italy as public domain in 1994 whilst Norway in 2000 concluded that groundwater was private property

This study will briefly look into the following main questions: How do the examples from Italy and Norway fit with the picture on how ownership to groundwater has developed in other countries in Europe today? What consequences might a model of private ownership in contradiction to public ownership entail for public access to water and sustainable management of the groundwater?

The study shows that private ownership of groundwater is more common in the northern parts of Europe whilst there has been a shift in middle and the southern parts towards more state ownership or a model where no one can invoke personal ownership. Further, it argues that all ownership models have imperfections to ensure public access and offer protection to groundwater, and that public access and sustainable use will require some sort of societal control beyond what an ownership model alone can offer. The article exemplifies through Nordic legislation that a public access and sustainable use of groundwater can also be taken into account under a private ownership. Still, the article argues that the concept of ownership is of contemporary importance.

Gunnhild Storbekkrønning Solli is a PHD Candidate at the University of Oslo. Her research project is an analysis of Norwegian law on rights to and use of groundwater.

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5. "Ecological sustainability – fundamental questions and implications for environmental law and governance"

ABSTRACT

Enforcing the human right to water and sanitation with regard to the UN 2030 Agenda for Sustainable Development, Goal 6 ("Water") versus EU free-trade agreements CETA, TTIP and the like

The presentation deals with sustainable water management and public services in the water sector in view of Germany and the EU against the background of CETA, TTIP and the like. It will focus on the field of democratically determined and controlled, ecologically harmless public water and sanitation supply, which is crucial for the constitutionally guaranteed well-being of people in Germany and other Member States of the EU. It leads to questions of performing, executing and financing these essential public tasks, which are directly linked to questions of sustainable protection of water resources and the human right to water and sanitation in connection with the 2030 Agenda for Sustainable Development, Goal (SDG) No 6 on water and sanitation. Further more it concerns the concept of "services of general economic interest" (SGEI), known from Art. 106 (2), Art. 14 and Protocol No 26 to the Treaty of the Functioning of the EU (TFEU) and Art. 36 EU Charter of Fundamental Rights (CFR).

Access to safe drinking water and basic sanitation supply is essential for maintaining public health and fundamental to the dignity of all human beings. Therefore, the protection of inshore waters, the implementation of sustainable water management systems and the assurance of safe, equitable and affordable access to adequate water and sanitary supply for all are counted among the pivotal questions of global societies.[1] The UN Agenda 2030 for sustainable development is based inter alia on these scientific findings. It was adopted by the UN General Assembly 2015 and states 17 ambitious SDGs which are building on the Millennium Development Goals adopted in 2000. All UN Member States are requested to

[1] See *UNESCO*, World Water Development Report 2014. Water and Energy Vol. 1, 2014, p. 26: *"According to the most recent climate projections from the Intergovernmental Panel on Climate Change (IPCC) (2008), dry regions are to a large extent expected to get drier and wet regions are expected to get wetter, and overall variability will increase. (...) and it is affecting local regional water supplies, including those available for energy production*."

implement the new SDGs until 2030 on national, regional and global levels.[2] Most notable is SDG No. 6: "Ensure availability and sustainable management of water and sanitation for all." It bases on an environmental and human rights approach[3], in accordance with the requirements by Léo Heller, the Special Rapporteur on the human right to safe drinking water and sanitation. As Heller emphasized in his current report (2015), "*water must be affordable to individuals for all personal and domestic uses (and) available for free (...) in situations where people are not able to pay for the service themselves. (...) However, when people are unable, for reasons beyond their control, to access sanitation through their own means, the State is obliged to find solutions for ensuring their access to sanitation free of charge.*"[4]

The presentation will point out that the EU´s free trade approach will ultimately affect pivotal questions of environmental protection, democracy, basic human rights, the Member States discretion to define, provide and finance SGEIs, constitutional state's obligations to the common welfare and the citizens´ well-being including the enforcement of UN Agenda 2030, SDG 6.

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2 *UN General Assembly*, 17 th session, 21 October 2015, Transforming our world: the 2030 Agenda for Sustainable Development, Resolution adopted by the GA on 25 September 2015, Document No. A/RES/70/1, p. 31-35.

3 *UN General Assembly*, Document No. A/RES/70/1, p. 6 No. 19: „*We reaffirm the importance of the Universal Declaration of Human Rights, as well as other international instruments relating to human rights and international law."*

4 See *UN General Assembly*, 17th session, 27 July 2015, Human right to safe drinking water and sanitation: Report of the Special Rapporteur *Léo Heller* on the human right to safe drinking water and sanitation, Document No. A/70/203, p. 6f.

Session V.D

Responsible Management of Pharmaceutical Waste in the EU – Towards a Comprehensive Legal Framework

By: Katerina Mitkidis

Subtheme: Raw materials and waste management or Water management

Pharmaceuticals improve and save lives; however, when disposed to the environment as waste, active pharmaceutical ingredients (APIs) designed to treat humans and animals may have unintended effects on other species and (mainly acquatic) ecosystems. Moreover, they also pose threat to human health. In this respect, especially endocrine-disrupting pharmaceuticals, anti-cancer treatment drugs and antibiotics are of concern. In 2015, the UN Strategic Approach to International Chemicals Management adopted 'Environmentally Persistent Pharmaceutical Pollutants' as an emerging policy issue.

APIs are released to the environment as waste during production and consumption. They cause water pollution and soil contamination. The amount of pharmaceutical waste is increasing with the increased production caused by development of new drugs, drug overconsumption, aging of the population and extending of drug access to new areas, e.g. in Africa. It is unrealistic to expect that the production would decrease; after all, the positive impact of pharmaceuticals on the society and the progress of medical science have been astonishing. Moreover, achieving good health is one of the UN Sustainable Development Goals. But so is ensuring sustainable management of clean water, conservation of life below water and protection of life on land that are all negatively influenced by pharmaceutical waste. To reconcile these goals, we should aim for better regulation of pharmaceutical waste management during industrial processes as well as disposal of unused pharmaceuticals.

According to article 8c of the directive 2013/39/EU on priority substances in the field of water policy, the Commission was asked to prepare 'a strategic approach to pollution of water by pharmaceutical substances' by 2015. However, the Commission has not fulfilled this obligation yet. Within the EU law, several legal acts partially regulate this topic; however, the legal framework is far from comprehensive and largely ineffective.

On this background, the aim of the present is twofold. Firstly, to reflect on the issue of pharmaceutical waste management in the light of the UN Sustainable Development Goals. Namely, facing many uncertainties from natural science, to argue for the application of the precautionary principle when developing legislation in this area in order to prevent escalation of the problem and its negative effects on water, biodiversity and soil. Secondly, to review the EU legal framework applicable to pharmaceutical waste management in order to detect any gaps that need to be closed if we want to effectively tackle the outlined problem and to identify issues where pharmaceutical legislation could take inspiration from other areas, such as the Extended Producer Liability concept known in the automotive and electronic sectors.

Bio: Katerina Mitkidis is an assistant professor at the Department of Law, Aarhus University, Denmark from where she gained a PhD degree (2014). Her dissertation titled 'Sustainability Clauses in International Business Contracts' focused on the interplay between sustainability goals and international contract law (published with Eleven International Publishing, 2015). She holds a Master in Law degree from Charles University (2009). Katerina's research focuses on the practice of using private law tools to advance public interests, especially in the CSR and environmental regulation area. She is also interested in the ways law and legal tools are designed and used to steer behaviour in environmentally sound and responsible directions. She was a visiting scholar at Duke University

(2016) and Vanderbilt University (2012). Before joining academia, Katerina worked as legal trainee for Baker&McKenzie Prague office and as a junior lawyer in Hajek&Zrzavecky, Czech Republic.

A State and Tendencies in Romanian Environment Law on Waste Management from a EU perspective

Dr. Violeta Stratan, Senior Lecturer,
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According to the EUEnvironmental Implementation Review [1], Romanian legislation seems to reflect the environmental requirements agreed at EU level with regard to waste management. Indeed, all the relevant directives in this field have been already transposed into the national legal system: the Waste Framework Directive (Directive 2008/98/EC) through the Law no. 211/2001 on the regime of waste, the Landfill Directive (Directive 1999/31/EC) through the Government Decision no. 349/2005 (last amended in 2016), the Packaging Directive (Directive 94/62/EC) through Law no. 249/2015.

Their implementation on the ground remains, however, an important challenge for both national and local authorities. This implementation gap concerning waste management has determined the Commission to initiate infringement cases for the bad application of the Landfill Directive[2] and the lack of waste management plans and waste prevention programs required under the Waste Framework Directive[3].

The European Commission has envisaged certain remedies, among which only a few have actually found legislative support. The landfill tax has finally come into force at the beginning of this year, the local authorities are now entitled to enforce the principle “pay as you throw” (due to the adoption of an EGO amending the law on the regime of waste), the EGO no. 196/2005 regarding the Environment Fund is about to be amended in order to meet the EU requirements, the National Waste Management Strategy 2014-2020 states that its aim is to create the necessary framework for developing and implementing an environmentally and economically sound integrated waste management system, and the National Waste Management Plan is undergoing a revision process within an Operational Program meant to enhance administrative capacity.

Nevertheless, our country is facing a complex situation: only 80% of the population is covered by services of waste collection, the landfills are very often substandard ones, about 800 000 tonnes / year of waste are abandoned illegally, the rate of recycling materials is extremely low whilst that of landfilling is one of the highest in EU. In these circumstances, Romania must heavily invest in recycling in the next coming years in order to reach the 2020 recycling targets.

[1] The EU Environmental Implementation Review, Country Report – ROMANIA, Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, http://ec.europa.eu/environment/eir/country-reports/index_en.htm
[2] http://europa.eu/rapid/press-release_IP-17-237_en.htm
[3] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016SC0230

It is therefore clear that Romanian authorities will have to look for better waste management and a waste prevention strategy, in order to deal with illegal landfilling, ensure better enforcement of EU compliant legislation, increase recycling and thus enhance sustainable development.

The purpose of this paper is to identify such means as to improve implementation of EU compliant legislation. It will analyze the causes of the implementation gap, as revealed from several case studies, and seek the best approaches in filling the gap.

Keywords: waste hierarchy, waste management, illegal landfilling, recycling and reuse, “pay as you throw” scheme, extended producer’s responsibility, integrated waste management system, national authorities, local authorities, sustainable development.

Dr. Violeta STRATAN

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FACULTY OF LAW, WEST UNIVERSITY TIMISOARA

Since 2000, I have taught at the Faculty of Law of the West University of Timisoara, where I am now a Senior Lecturer. At undergraduate level, I teach seminars of Legal English, Legal French and Administrative Law, whilst at postgraduate level I teach courses of Administrative Liability and Public Property Litigations. I am a member of the European Centre for Legal Studies and Research, attached to the Faculty of Law, West University of Timisoara. In 2014, I have published a book on *Local Autonomy and Subsidiarity in French and Romanian Law*, as a result of a PhD thesis I defended at Montpellier University, in France.

District heating as sustainable waste management: old idea parading as new one

Related subtheme

4) Raw materials and waste management

Content

District heating is 'hot' in several EU Member States and regions. Although the idea of district heating is not new, it has regained a lot of interest over the past few years as a way to sustainably manage waste and at the same time produce energy. The renewed interest frames within the focus on waste-to-energy within the circular economy policy.

District heating provides around 9% of the EU's heating. However, the position of district heating on the heating market varies seriously between countries, based on traditional differences and infrastructure design. In parts of northern and eastern Europe, approximately 50% of all households are currently heated by district heating. It is the dominant heating method in all Nordic countries, except Norway, and is prominent in Germany and the Netherlands.

The EU wants to raise the percentage of district heating and mentions in the 2016 EU Strategy on Heating and Cooling that district heating should be supported more. However, there are still many legal barriers during the construction phase as well as during the operation phase. This presentation will first give an analysis of the potential legal barriers, based on concrete examples/cases.

To overcome (some of) the legal barriers, several EU Member States and regions are assessing and/or creating a legal framework. This is for example the case in Flanders and the Netherlands. For Flanders the extent of the attention for district heating is rather new. Based on some assessments and ongoing developments, the presentation will give an evaluation of how a legal framework to stimulate district heating could/should look like. The evaluation will be based on a comparative analysis.

Main theses

District heating is an important and interesting renewed opportunity, but also challenge, for sustainable waste management.

However, there are still many potential legal barriers, during the construction phase as well as during the operation phase.

There are clear examples of legal frameworks in various EU Member States that show how law can support district heating.

Short biography

Bernard Vanheusden is Associate Professor of Environmental Law at the Law Faculty of Hasselt University (Belgium). He teaches amongst others European Environmental Law (in English), Environmental Law (in Dutch) and Environmental Policy (in Dutch). His research mainly focuses on clean tech law (licensing, waste/materials management, soil remediation,

wastewater, renewable energy, environmental impact assessment, brownfield redevelopment, land use,…). Bernard supervises various international and national research projects and PhD researches.

Bernard is one of the initiators and a member of the Managing Board of the European Environmental Law Forum (EELF). He is also a member of the IUCN World Commission on Environmental Law, and a member of its "Specialist Group on Sustainable Use of Soil and Desertification". Furthermore, he is associate editor of the *Journal for European Environmental & Planning Law* (JEEPL) and editor in chief of the Belgian review *Milieu- en Energierecht* (Environmental and Energy Law).

Session V.E

Contextualising patenting of plant genetic resources: hidden threats to biodiversity

Abstract

Two key decisions by the European Patent Office's Enlarged Board of Appeal slipped by largely unnoticed for many. However, the March 2015 decisions of Tomato II and Broccoli II bring the European approach to plant patenting closer to that in North America and have the potential to impact negatively on the future of plant breeding and on biodiversity within Europe.

Biodiversity, including genetic diversity or plant genetic resources (PGRs), is essential to sustainability and to other fundamental objectives such as food security. This can be achieved through breeding, innovation or indeed simply physically introducing a species into a new setting. However, developing or introducing new crops can be a costly and risky business. Intellectual property rights (IPRs), including patents, are considered to promote and reward investment and innovation, by providing individuals or corporations with a form of enforceable property right. Europe has facilitated the application of IPRs to living organisms and specifically plants or plant materials via a number of mechanisms including through the European Patent Convention, the Biotech Directive and the Regulation on Community plant variety rights. However, the potential impact of IPRs in the context of living organisms is much greater than it might appear and specifically in relation to patenting rules.

This piece argues that the contextual elements lead to an imbalance in the operation of patenting rules. Whilst the Tomato II and Broccoli II decisions focussed on the patents of components within individual plants, the patent has the potential to attach to any progeny carrying the patented trait (even where accidental) with considerable knock-on effects. These knock-on effects are due to numerous contextual elements, such as capitalism, economic goals, changes in agricultural practices, the innate reproductive capacity of living organisms and the permeable nature of the environment. In context, patenting goes beyond one plant or trait and leads to the enclosure of PGRs more broadly – of something once considered to be a public good into a private good – even whilst pronouncing this as in the public interest. Thereby, the context itself is undermining one of the over-arching aims of patenting.

Consequently, it is essential to contextualise IPRs in an interdisciplinary manner. Questions arise as a result, such as should IPRs be re-conceptualised in this field and overhauled in order to create more fit-for-purpose sui generis systems? Alternatively, should society do away with private ownership of PGRs and reinstate them as public goods? The context itself will make significant changes challenging, but at least the questions must be posed if society is to take biodiversity and sustainability seriously.

Mary is an environmental law lecturer in the Law School in Queen's University Belfast, having studied previously in both Paris and Dublin. Her research focuses on areas such as EU environmental and constitutional law. In particular, she specializes on issues surrounding the cultivation of genetically modified (GM) crops. Mary recently undertook research funded by the British Academy regarding the governance of GM crops within the EU and the ability and desire of Member States or regions to 'opt-out'. She is also currently exploring the significance of the enclosure of plant material through either biological mechanisms or intellectual property law for agricultural sustainability and food security.

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Abstract submission for:

Annual EELF Conference 2017
Sustainable Management of Natural Resources – Legal Approaches & Instruments
(30 August – 1 September 2017, Copenhagen)

"Can the EU System Accommodate Sustainable Patent Law and Policy? Between Biotechnology and Biodiversity"

Subthemes:
- Biodiversity and Nature Management (2)
- Ecological sustainability – fundamental questions and implications for environmental law and governance (5)

Patent law – although primarily focused on incentivising innovation and technological progress – can play an influential role in the environmental scenario. The patent policy may be considered as one of the instruments that have a significant impact on different sustainable strategies. Nevertheless, patent law and environmental protection proved on many occasions to be difficult companions despite the fact that their mutual influences have not only normative, but also practical implications.

One of the problems that arise at the intersection of the Intellectual Property (IP) policy and the environmental field is the question of potential consequences of biotechnological inventions on biodiversity. It is recognized that genetic modifications affect biodiversity. Yet, both issues are predominantly treated as separate domains by international IP treaties as well as domestic laws.

This paper aims at examining the deficiencies of the patent system, particularly in relation to biotechnological inventions, in failing to properly accommodate the concerns pertaining to biodiversity protection. Its purpose is to search for a justification of this inadequacy as well as the way in which it can be corrected, namely how to properly integrate the concerns of biodiversity protection into the patent system.

The framework for protection of biotechnological inventions is provided in the European Union by the *Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions*. The directive has also been adopted into the system of European patents as granted by the European Patent Office. On the other hand, the issues concerning biodiversity are dealt with in the *Convention on Biological Diversity* 1992 and the *Cartagena Protocol on Biosafety* 2000. While the Convention and the Protocol on biodiversity embrace the concerns relating to biotechnology, the legislation that introduced patent protection for biotech industry remains silent about the issues of biological diversity.

The proposed contribution will analyse these problems in light of the natural resources and their (non)sustainable exploitation within the pharmaceutical and food industries. These sectors pose a particularly critical threat to biological diversity due to the intensity of production as well as various commercial interests involved.

Biography:

Dr Agnieszka A. Machnicka is Lecturer in Law at The Hague University of Applied Sciences.
She holds a Master of Laws degree (University of Warsaw), a D.E.S.S de droit des affaires (Université de Poitiers), an LL.M. in Common Law (University of Ottawa), a Master of Research (European University Institute), a Ph.D. in Law (University of Warsaw) and a Ph.D. in Law (European University Institute).
Before joining THUAS, she was Senior Research at the Vrije Universiteit Amsterdam. Previously, she was a GRUR Post-doctoral researcher at the Max Planck Institute for Intellectual Property and Competition Law (Munich), a Post-doctoral Research Fellow at the University of Siena and a teaching assistant at the University of Warsaw. She has held visiting appointments at the Katholieke Universiteit Leuven (Visiting researcher) and the University of Alcalá (Visiting Scholar 'Giner de los Ríos'), where she is a member of the research group 'Derecho y Empresa'. Her academic experience was enriched by internships at Gide Loyrette & Nouel (Warsaw), the Patent Office of the Republic of Poland and the European Patent Office (Munich).

Annual European Environmental Law Forum (EELF) Conference 2017

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – LEGAL APPROACHES AND INSTRUMENTS

Paper Presentation Proposal

Title: *Subterranean Biodiversity – the Endangered Biota Neglected by EU Conservation Legislation*

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Abstract:

The aphotic nature of the subterranean environment gives rise to a peculiar ecosystem, composed of terrestrial (troglofauna) and aquatic (stygofauna) organisms with unique morphological and physiological adaptations. This subterranean fauna represents multiple independent colorizations of the underground environment including nematodes, molluscs, annelids and arthropods. The proportion of relicts and endemic species here is higher than in any other habitat. The special characteristics of this fauna increase the risk of species' extinction due to anthropogenic disturbance. Accordingly, this subterranean biota is considered as valuable and threatened biological heritage.

Subterranean fauna accounts for 8% of the European aquatic fauna diversity. This fauna is crucial for maintaining high-quality groundwater and ecosystems, which in turn preserves biodiversity. This unique fauna plays a key role in water purification, providing important ecological services to human health and ensuring the balance of these ecosystems, as well as in the dependent groundwater ecosystems, such as springs, rivers and lakes.

SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – LEGAL APPROACHES AND INSTRUMENTS

While there are an array of EU regulations concerning the ecological conservation of surface freshwater biodiversity in place, the legal framework protecting groundwater biodiversity is arguably deficient. The EU Water Framework Directive or the Groundwater Directive solely refer to the chemical status (i.e. physic-chemical parameters of the groundwater), neglecting its ecological status (i.e. the species that composed the ecosystem, the biotic relations among them and with the surrounding environment). Similarly, the Habitats Directive pays almost no attention to subterranean-adapted organisms in the terrestrial subterranean compartment, which is intimately linked with the groundwater cycle.

Therefore, to ensure sustainability of subterranean ecosystems it is imperative to put in place adequate conservation measures focused on subterranean habitats and, specifically, concerning subterranean-adapted species.

This article will critically analyse the current legal framework surrounding the conservation of groundwater ecosystems, highlighting the need to further understanding of their ecological challenges in connection with the current legislation. The aim of this article is to provide a way forward for future regulatory approaches and instruments, which is sound from a biology and legal perspective.

Session VI.A

Biography: Prof. Dr. Wolfgang Köck, studies the law at the university of Bremen; phd-thesis and habilitation at university of Bremen (Prof. Dr. Gerd Winter); fellow at the centre for interdisziplinary research (University of Bielefeld)
Current position: Head of the Department of Environmental and Planning Law at Helmholtz Centre for Environmental Research – UFZ, Leipzig; Professor for Environmental Law at the Law Faculty, University of Leipzig; Chairman of the Scientific Council at Helmholtz Centre for Environmental Research; Editor in charge “Zeitschrift für Umweltrecht” (ZUR) (monthly journal); Editorial Board “Journal for European Environmental and Planning Law (JEEPL)

Felix Ekardt

Cost-Benefit Analysis: A Basis for Defining Targets of Biodiversity Governance? (subtheme 2)

Especially biodiversity and climate law and governance are often confronted with the demand to define their goals in a more “rational” way. Economic evaluations envisage the monetary assessment and weighing of all advantages and disadvantages or costs and benefits of decisions for different concerns or the different parties involved respectively. From the economic point of view, the condition at which the equilibrium of costs and benefits is at its optimum is called efficient. The equilibrium is reached by making all (or most) of the costs and benefits count by converting them into a monetary value. Regarding biodiversity, lost or gained years of life or aesthetic issues, but also ecosystem services without market price are e.g. included. The determination of costs and benefits is based on factual preferences of the society.

Economic evaluation and economic instruments should not be confused with each other. Economic instruments serve to direct human behavior as a means of political governance towards in this case environmental protection or rather nature conservation. This is done through monetary incentives. Prices can be set or influenced by fees, subsidies, cap-and-trade systems or the reduction of harmful subsidies. The alleged optimal price for an environmental good, which is then turned into an economic instrument, can theoretically be determined by an economic evaluation. This connection is however not an inevitable one as we will see in the next chapter.

The economic evaluation as a method leads to hardly solvable basic and application problems:

- One problem of the economic evaluation of nature conservation is the immense amount of data that would be necessary to calculate the costs and benefits of different options of dealing with the nature due to its polymorph character. Furthermore, it is difficult to count ecosystems and their services, since they cannot really be substituted or restored (and the problem of uncertainty occurs).
- A special problem is caused by cost factors and benefit factors without existing prices at real markets. In such cases, economists try to determine a hypothetical willingness to pay – for example, for the beauty of a landscape or the life years gained due to the enhanced quality of the environment. Whatever the method of enquiring or observing the willingness to pay is: In the end, the determination of how much someone would pay for his or her own life or for the absence of violent conflicts about resources always contains a fictive and therefore not sufficiently informative element. Observations of a “morality of the markets” can hardly help here. This means that the value of the nature’s beauty is for instance determined by the price people are willing to pay for a property in the countryside. The related information is far too selective and far too vague (and related to a far too small population group) to deduce preferences for concrete species and ecosystems. Using the reinstatement costs instead can help in this regard only occasionally; because on the one hand this might not depict the entire damage and on the other hand a lot of things cannot be restored (e.g. in cases of death). Moreover, the ability to pay is naturally restricted by the willingness to pay – the consequence is that a billionaire’s interests in big-game hunting would weigh massively more than the interests of people from a developing country in preserving their basis of life with regard to their subsistence farming.

• The cost-benefit analysis further privileges the preferences of currently living human beings since future generations cannot yet express or confirm their preferences through purchase decisions with their financial capital. If, however, the preferences of future generations are taken into account, this happens inevitably completely hypothetically and undermines the empirical approach of the cost-benefit analysis. Furthermore, economics wants to set up a huge discount for future preferences in comparison to current preferences. From the legal point of view however, this is not convincing, since a person simply does not have less value just because he or she lives in the future.
• Economic evaluations are partly contrary to the constitutional framework of liberal democracies. This framework consists of certain rights especially on freedoms, elementary preconditions of freedom (like life, health, and subsistence) and conditions encouraging freedom. Freedom in a liberal democracy is not however only the freedom of financially strong consumers and the decisions are usually not made as a situational plebiscite as it would comply with the cost-benefit analysis. In reality, representative democratic decision systems have proven successful in organizing themselves as well as enhancing the rationality of decisions. With this, the cost-benefit analysis is hardly consistent.

Therefore, the targets for nature conservation cannot be calculated by economic evaluations. The targets for nature protection are rather political and legal requirements as they are normed for instance within the CBD. Since human beings are existentially dependent on stable ecosystems, nature conservation policy also has a basis in human rights. In addition, the protection of biodiversity and of ecosystems shows strong interrelations with other policy fields based on human rights like climate protection.

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5th EELF Annual Conference
Sustainable Management of Natural Resources - Legal Instruments and Approaches
Subtheme: Biodiversity and Nature Management
30.8 -1.9. University of Copenhagen, Denmark

Creating markets for ecological compensation

Jukka Similä, University of Lapland

Loss of biodiversity is one of the main environmental problems globally and a key reason for this is detrimental biodiversity impacts caused by various kinds of development projects. Traditional policy instruments, like protected areas funded from public resources, are alone insufficient measures to stop the loss of biodiversity. Biodiversity off-sets are seen as an additional instrument, which could direct the use of private resources for the conservation of biodiversity values. Biodiversity off-sets may be a part of solution how to achieve the biodiversity policy goals of no net loss or even net positive impact. However, the promise of biodiversity off-sets could come a reality only if the amount of compensatory measures is significant. This calls for well-functioning compensation markets.

The Habitats Directive has an explicit mechanism for compensation in the case where a plan or project adversely affect the integrity of a Natura 2000 site. While this mechanism have been applied several times, the strict conditions, which must be met before the issue of compensation can be explored, do not support the emergency of well-functioning markets. It is also possible to argue that market-based compensation schemes should be develop to counter-act biodiversity loss outside protected areas. Other kinds of compensatory measures are, in principle, also possible under national law, at least in Finland. However, currently there is no such thing as compensation markets in Finland. Compensations relate to specific situations and law in force do not create demand and supply for such measures. Furthermore, it is unlikely that compensation market would ever emerge without changes in regulation. After saying this, it is important to note that the possibility to develop market-based compensation schemes have drawn increasingly attention globally and also in Finland.

The purpose of this paper is to assess how current law hinders or supports the creation of biodiversity compensation markets and what kinds of legal reform would support the functioning of compensation markets, while ensuring the achievement of the policy goals of no net loss and net positive impact. The article explores the relevant laws and regulations in EU-Finland and use comparative material from other countries to illustrate the features of law, which are relevant for making regulation to support the creation of compensation markets.

The theses of the paper are as follows

- the design of regulation is the key reason why there is no biodiversity compensation markets
- a legal reform aiming to create such markets involves risks, which, however, are likely to be avoided by careful design

Biography - Jukka Similä

Jukka Similä has been Research Professor in Natural Resources Law at the University of Lapland, in Rovaniemi, Finland since November 2013. Before that he worked for the Finnish Environment Institute as a Head of Unit (Policy Analysis). His research has focused on environmental law and particularly in questions concerning pollution, biodiversity, and natural resources. In these areas he has considered diverse problems related to regulation theory, such as criteria for evaluating environmental regulation; how to evaluate recently introduced regulatory instruments; the ecological effectiveness of regulation, identification and evaluation of the regulatory innovations; how regulation affects the technological development; what explains compliance with regulation; what empirical evidence tells about the functioning of the system of appeals; and how to develop law for ecosystem services. He has published jurisprudential books and articles particularly related to EU environmental law, nature conservation law and forest regulation.

HELMHOLTZ CENTRE FOR ENVIRONMENTAL RESEARCH – UFZ

Sustainable transformation of water infrastructures: Factual and regulatory challenges with a particular focus on finance.

Water supply and waste water infrastructures are subject to multiple sustainability pressures facing climate change, demographic change, investment deficits and advanced requirements of water management. As the case may be, they need to undergo a substantial transformation towards more resource efficient, more flexible and less polluting technologies. In some cases this implies the need to change the system to decentralized closed-loop technologies and in other cases necessitates the implementation of advanced treatment technologies (e.g. the so called 4th treatment stage for waste water plants).

System changes to more sustainable technologies imply a great deal of investment and sunken cost (as to the abandoned infrastructure). Therefore, financing of sustainable water infrastructures becomes a key issue of sustainable water management. This gives rise to the question how such transformation costs are addressed by law, especially how they are allocated and whether existing financing instruments are suitable to raise the needed funds and recover the costs respectively.

Common principles of cost allocation include the polluter/user pays and cost recovery principles which are generally proclaimed in Article 9 of the Water Framework Directive and regularly implemented by means of levies and charges for water services and sometimes also water taking and pollution. However, under Article 9 of the Water Framework Directive there are more financing instruments conceivable than these traditional ones.

The existing legal cost allocation instruments seem to work relatively well, regarding the continuation of existing water service systems within the limits of mandatory environmental performance standards. However, it is questionable whether they also suffice as instruments to cover the costs of technological leaps or supplementary sustainability efforts that are not specifically indicated by existing standards.

This contribution exemplifies such “sustainability deficiencies” of the traditional financing instruments in view of the *German* system, and it sketches out how the framework could be amended to be more supportive of sustainable transformations. On that basis it formulates a set of questions for a comparative review which the presenter wishes to address to the audience.

Eventually, it will also be indicated that the above problems of “sustainability finance” are not limited to the field of water services but also relevant in other fields of natural resources management, like restoration of inland waters, waste, energy and green infrastructure.

Biography

Henrik Fischer studied law in Düsseldorf and Leipzig from 2010 to 2015, focusing on administrative and environmental law. Ever since he finished his studies, he is working at the Helmholtz-Centre for environmental research – UFZ Leipzig as research assistant and PhD-student. In different projects he is focusing on water management and water infrastructure. The ongoing PhD-project is about legal aspects of financing transformations towards sustainable waste water infrastructures.

Session VI.B

Jan Darpö is a professor of environmental law at the Faculty of Law, Uppsala Universitet. He graduated from the law school there in 1991, and served thereafter as law clerk and lecturer before beginning doctoral studies. After receiving his doctor degree, he served as an adjunct member of the Environmental Court of Appeal 2001-2004. Returning to Uppsala, his research has focused on remediation of contaminated land, environmental procedure, permit regimes, nature conservation and species protection. He has been visiting fellow at the Law School at the University of Minnesota (2008) and University of New South Wales in Sydney (2012). Since 2008, he is the chair of the Task Force on Access to Justice under the Aarhus Convention. He has also worked as a lead consultant to the European Commission and evaluator for several international research institutes. Jan Darpö is a member of the Avosetta group of European environmental law professors.

Author: Paulo Linhares Dias[1]

Topic: Environmental Tribunals - Effective Jurisdictional Protection in Environmental Law

EELF 2017 Subtheme: 5) Ecological sustainability – fundamental questions and implications for environmental law and governance

ABSTRACT

The purpose of this paper is to contribute with a reflective analysis to a new age on environmental law evolution's, regarding the judicial domain in Europe. Environmental law regulates a complex and diverse set of situations that are transversal and cross several law domains, namely: administrative law, civil law, criminal law and litigation and administrative sanctions, as is frequently reflected in conflicts of jurisdiction. At the same time, environmental law has evolved significantly as a legal science, demanding more effective judicial protection and, ultimately, there is a significant change in the "sociological basis" that calls for the intervention of this law domain. We believe that the resolution of these issues will eventually lead to the establishment and optimization of environmental courts in Europe, which is the main subject of this study.

According to the latest United Nations Environmental Programme study (2016), the "explosion" in the number of Environmental Courts and Tribunals (ECT) since 2000 is astounding. Today, there are over 1,200 ECTs in 44 countries at the national or state/provincial level, with some 20 additional countries discussing or planning to implement them. This continuous rise of numbers is being driven by the development of new international and national environmental laws and principles, by the recognition of the linkage between human rights and environmental protection, by the threat of climate change and by public dissatisfaction with the existing general judicial forums.

A special focus is given on the European perspective and the efforts to assure Effective Jurisdictional Protection in Environmental Law, either on the behalf of UN or EU, specially the proposal of the European directive regarding information, procedure and jurisdictional protection in environmental matters.

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Biography:

Graduated in 1994 at the Law School of the University of Coimbra (Portugal), postgraduate in Administrative Justice, by this University, in 2005, and in Administrative and Regional Law by the University of the Azores / Law School of the Classical University of Lisbon.

Master in Political Law Sciences - Administrative Law - Law School of the University of Coimbra, in 2016, and PhD student (since 2016) in Public Law, at the same university.

Is member of the Portuguese Bar Association, since 1997, and since 1998 has been practicing law exclusively as a generalist, and specializing in public law, especially in Criminal and Administrative domains.

Since 2014 is member of the Public Contracting Group - CEDIPRE (Center for Public Law and Regulation Studies) - Law Scholl of the University of Coimbra and, since 2007, has published several articles in Portuguese specialty law journals and is co-author of two specialty law books.

The paper that I submit for consideration to the European Environmental Law Conference 2017 seeks to explore the following question:

How is rational argument employed by environmental justice actors in participatory environmental governance structures?

Related sub-themes

- Participation in environmental governance
- Environmental justice
- Communicative rationality

Participatory governance is an approach to governance particularly favoured in environmental law. This paper will explore the assumptions of rationality and rational dialogue that are embedded in participatory governance. In exploring this issue, this paper will unpick the philosophical assumptions embedded in participatory governance, a form of governance commended for its inclusive, democratic approach. Moreover, this paper will approach this topic from the perspective of the grassroots environmental justice organisation, a sector whose perspective is often ignored in theoretical discussions.

Theses

- How does Habermas' theory of communicative rationality inform the ideals of participatory governance?
- How do environmental justice actors operate in participatory environmental governance structures? Do they employ arguments or approaches that are different from the arguments and approaches they employ in their everyday work?
- Are there hierarchies of knowledge at work in participatory environmental governance structures? If so, where do they stem from and how are they perpetuated? Are voices privileged or excluded as a result of this hierarchy?

Content

The topic of this proposed paper is central to my doctoral research project, and as such presents an opportunity for me to share ongoing research.

Firstly, I will outline the theoretical background for the topics explored in this paper, namely:

- Habermas' theory of communicative rationality and the influence of these idealised notions of rational argument on participatory governance
- Environmental justice and its history with participatory environmental governance

This paper will further discuss existing literature on rationality within participatory environmental governance structures.

As part of my doctoral research project, I am conducting empirical research with environmental justice organisations working in participatory environmental governance. Consequently, I will be able to present some initial findings from this research in this paper.

By exploring the theoretical background and by considering empirical data relevant to this topic, this paper will provide a valuable opportunity to critically engage with notions of rational argument as it is employed by environmental justice actors in participatory environmental governance structures.

Caer Smyth

I am a PhD candidate at Cardiff University School of Law and Politics; my research explores how rational dialogue is employed by environmental justice organisations working in participatory environmental governance structures. I have a Bachelors' degree in History and Political Science from Trinity College Dublin, a Masters' Degree in Human Rights from the University of London, and a Masters' Degree in social science research methods from Cardiff University.

Bonnie Holligan, University of Sussex

Security and Equity of Private Mechanisms for Securing Environmental Obligations: Public Participation and Access to Information in English and German Law.

Keywords: biodiversity offsetting; private property; land burdens; access to information; public participation

Aims

The research presented in the paper is part of a broader project, the aim of which is to compare public and private law mechanisms for securing environmental obligations in England, France and Germany with particular reference to the balance between security and equity. I am particularly interested in opportunities for public participation and access to environmental information at each stage in the lifecycle of the obligation (creation, enforcement and modification or discharge).

Outline

The proposed paper engages with recent shifts from public to private in environmental governance, in particular the move to include market mechanisms as part of regulatory strategy in areas such as biodiversity protection.[1] This raises a number of concerns related to environmental justice and the possible adverse impacts on the ability of the public to participate in and be informed about environmental protection measures.[2] The proposed paper considers the use of property mechanisms to secure environmental obligations, in particular in the context of "biodiversity offsetting", and how these compare to public law mechanisms in terms of their provision for public participation and access to environmental information. The paper will present the results of recent research into relevant mechanisms in English and German law.

Research Questions

1. Do German and English Law permit the creation of environmental obligations which both burden land and are enforceable by persons (natural or juristic) who are not neighbouring landowners?
2. If so:
    a) Are these obligations created voluntarily? Are they incentivised (e.g. by tax breaks) or required by the state (e.g. as part of the land-use planning process)?
    b) Can the obligations involve the imposition of positive duties on the landowner?
    c) Do the general public have access to information about these obligations? Are they registered in a public register such as the Grundbuch (Germany) or the Land Register (England)?
    d) Is there any provision for public participation or oversight in the creation, enforcement or discharge of these obligations?

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[1] See e.g. C T Reid and W Nsoh, *The Privatisation of Biodiversity: New Approaches to Conservation Law* (Edward Elgar, 2016).

[2] See for example R L Glicksman and T Kaime, "A Comparative Analysis of Accountability Mechanisms for Ecosystem Services Markets in the United States and the European Union" (2013) 2(2) *Transnational Environmental Law* 259.

Thesis

The paper argues that recent proposals by the Law Commission to introduce a new form of environmental obligation secured against land in England and Wales, the conservation covenant, do not make adequate provision for public participation or access to information. The paper compares the position in German law, arguing that, although some improvements to the English proposals can be identified, the private nature of the mechanism means that there are inherent limitations to its potential to provide environmental and ecological justice.

Biography

Dr Bonnie Holligan is currently employed as a lecturer in property law at the University of Sussex, UK. Her research interests lie at the intersection between property and environmental law; she is currently researching issues related to the use of property mechanisms in environmental governance. Her teaching responsibilities include the core course Land Law and the optional modules Land, Property and Environment and Biodiversity, Cultural Heritage and Law (LLM). Prior to her current position, she completed her PhD (awarded 2015) at the University of

AUTHOR:

Maria Maniadaki, Lawyer, MLE, Coordinator of the Environmental Law Observatory of West Crete, Tel: +30 6942238412

TITLE:

Geographic Information Systems (GIS) as a tool to provide environmental information to the public and to monitor the efficiency of the relevant public services

RELATED SUBTHEMES:

1. **Ecological sustainability-fundamental questions and implications for environmental law and governance**
2. **Biodiversity and Nature Management**

ABSTRACT

According to WWF's report of 2016 regarding the implementation of environmental law in Greece, Greece has completely failed to provide environmental information through electronic data bases. The purpose of this policy is to prevent citizens from participating actively in environmental matters. It is also remarkable that Greece is rated on the second position for open environmental court cases in front of the Court of Justice of the European Union.

In these frames, the idea of establishing an Environmental Law Observatory in order to provide electronic, accurate and objective environmental information to the public and to monitor the efficiency of the relevant public services was born.

Two Environmental Law Observatories have already been established in Crete (one for West Crete, covering the regions of Chania and Rethimnon, and one for East Crete, covering the regions of Heraklion and Lassithi), co-financed by the European LIFE Programme LIFE NATURA THEMIS (LIFE14/GIE/GR/000026) and by the local Lawyers' Association Bars.

The characteristics of these Environmental Law Observatories are the following:

1. Independent operation, objective information
2. Record and analysis of Penal Environmental Court Cases and the imposed Administrative Fines, regarding the respective regions with emphasis on NATURA 2000 areas
3. Import of collected data in a geo-informatics (GIS) map, accessible to the public through the project's website http://www.lifethemis.eu.

The innovation of this technique is one hand the fact that through the available user friendly search filters of the GIS map, it is easy for everybody to extract information regarding the place, the time, the type of the recorded environmental offences, as well as how the respective public service tackled each one of them.

On the other hand, this technique is a unique way to monitor the efficiency of the relevant public services. For example, it was found that 68.57% of the criminals accused of environmental crimes in NATURA 2000 areas were not finally judged guilty for reasons that have been further analyzed and that 10% of the cases were archived due to expiry of time-limit for prosecuting an offence.

In addition, the high majority (82,91%) of imposed administrative fines was found to be rather low; between 1,00-5.000 Euro, whereas fines exceeding 20.000 Euro represent just 1,90% of the total.

Methodologically, the above research has been extremely difficult and time consuming, since it had to be executed manually for each case, due to lack of any official electronic data. For this reason, a Declaration of Cooperation between the Ministry of Justice in Greece and the Observatories is to be signed in the next days, according to which each environmental case in the Courts in Crete will be characterized with the code "ENVIRONMENTAL CRIME". This action will enable the Observatories to collect easier their data, update the geo-informatics (GIS) map quickly and provide more data to the public.

This on-going well known project of the Environmental Law Observatories in Crete can be used as a model, how Geographic Information Systems (GIS) are able to boost environmental information and affect law and environmental governance.

Short CV

Maria Maniadaki, was born and grew up in Chania, Crete, Greece. She holds the Degree of Law from the School of Law, University of Athens, Greece. She has also attended post-graduate studies in European Law in the School of Law, University of Hanover, Germany, and has the title of Magister Legum Europae (MLE). She lives and works in Chania as a Lawyer since 2004. She has also been a teaching assistant in the Technological Educational Institute of Crete, Branch of Chania, School of Natural Resources and Environment, teaching Environmental Law Courses from 2003 till 2011. Since 2015, apart from being an active lawyer, she works as the Coordinator of the Environmental Law Observatory of West Crete, in the frames of the European Programme LIFE14/GIE/GR/000026 with the title "Promoting awareness of wildlife crime prosecution and liability for biodiversity damage in NATURA 2000 areas in Crete". She speaks Greek, English, German and Russian.

Session VI.D

Subtheme: Ecological sustainability – fundamental questions and implications for environmental law and governance

The Reciprocal Relationship of Environmental Responsibility and Liability: What are the Chances?

Florina Popa, West University of Timisoara, The Faculty of Law
Flaminia Stârc-Meclejan, West University of Timisoara, The Faculty of Law

This paper aims at exploring the current state and the ”tendencies” of the relationship of environmental responsibility and liability, starting from the study of the legislation implementing Directive 2004/35/EC 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 in Romania, namely Government Emergency Ordinance no. 68/2007[1].

The paper will begin by introducing and defining the legal concept of "pure ecological damage" as the damage to protected species and natural habitats, damage to water and damage to soil, thus distinguishing it from the "traditional damage" to property, economic loss, and personal injury. We shall then commence a discussion on the environmental liability ”system”[2], examining the specific dimensions of ecological damage – its seriousness and often irreversible consequences, the liable party, in principle the operator who carries out occupational activities, the specific preventive or remedial measures, and at the same time its procedural challenges. Following this, we shall explore how all the analysed concepts and their actual implementation (based on the The EU Environmental Implementation Review Country Report - ROMANIA[3] and the Study on ELD Effectiveness: Scope and Exceptions[4]), can effectively contribute to promoting environmental responsibility. For the period 2007-2013, Romania reported four cases of environmental damage handled under the Environmental Liability Directive, showing an interest in implementing the Directive effectively[5]. According to the Report from The Commission to The Council, The European Parliament, The European Economic and Social Committee and The Committee of The Regions on the environmental liability with regard to the prevention and remedying of environmental damage[6], reasons for the relatively low number of ELD cases could include limited knowledge by operators, but it may also reflect the preventive effect that the ELD is already having. We shall thus focus our attention in the final part of the paper on the

[1] http://ec.europa.eu/environment/legal/liability/pdf/eld_ms_reports/RO.pdf.
[2] http://ec.europa.eu/environment/eir/pdf/report_ro_en.pdf.
[3] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52010DC0581.
[4] http://ec.europa.eu/environment/legal/liability/pdf/BIO%20ELD%20Effectiveness_report.pdf.
[5] http://ec.europa.eu/environment/eir/pdf/report_ro_en.pdf.
[6] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52010DC0581.

linkages between the law and operators' voluntary initiatives aimed at preventing liability, and the extent to which "voluntary" standards have converged around a set of global standards of conduct, which businesses would ignore at their peril[7].

Keywords: environmental responsibility, environmental liability, pure ecological damage, preventive or remedial measures, "voluntary" standards

Florina Popa has taught at the West University of Timisoara, The Faculty of Law for twenty years, where she is now Senior Lecturer of Civil Procedure, and is also delivering seminars on Onerous Civil Law Contracts. She is member of the European Centre for Legal Studies and Research, attached to the Faculty of Law of West University of Timisoara. She is also a lawyer, member of Timiș Bar Association, since 1996, and member of the Court of Arbitration attached to Timiș Chamber of Commerce, Industry and Agriculture, since 2011. Florina Popa is also lecturer at the National Institute for Training and Improvement of Lawyers, since 2010. She is a founding member and member of the directorate of the environmental protection association GREEN EDUCARE.

Flaminia Starc-Meclejan has taught at the West University of Timisoara, The Faculty of Law for sixteen years, where she is now Senior Lecturer of Environmental Law and EU Company Law, and is also delivering seminars on Company Law, and Legal English. She is also a lawyer, member of Timis Bar Association. She is member of the European Centre for Legal Studies and Research, attached to the Faculty of Law, of the editorial board of the faculty's journal, of the European Environmental Law Forum and of the Romanian Association for Law and European Affairs. She conducted research at Université Rennes 1, France, the International Faculty of Comparative Law, Strasbourg, Heidelberg Centre For Social Investment at Heidelberg University. In 2015, she has published a book on *CSR and the Need for New Principles in Company Law*.

[7] See for instance M. Kerr, R. Janda, C. Pitts, *Corporate Social Responsibility - A Legal Analysis*, LexisNexis, Canada, 2009.

The abstract for the annual EELF conference in Copenhagen in 2017

The international liability and redress regime regarding environmental damage caused by cultivation of genetically modified crops—links with the Environmental Liability Directive

Genetically modified crops (hereinafter GM crops) are crops genes of which have been modified to get desired traits such as herbicide resistance and pesticide resistance. GM crops can potentially give much benefit to human beings. For example, certain nutrients in crops can be enhanced by developing GM crops. By contrast, some scientists insist that cultivation of GM crops would produce adverse effects to the environment. Such environmental risks include the increased amount of pesticides that are sprayed in the field and the loss of biodiversity in an agroecosystem. In this vein, the paper addresses the second subtheme: biodiversity and nature management.

The international community has adopted the Convention on Biological Diversity, the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, and the Nagoya–Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety (hereinafter the Nagoya-Kuala Lumpur Supplementary Protocol) to address the prevention of environmental risks and the remediation of environmental damage that may be caused by cultivation of genetically modified crops. The three international instruments can be understood by explaining the legal principles and legal measures. The legal principles are the precautionary principle and the public involvement principle; while the legal measures consist of the advance informed agreement procedure, the biosafety clearinghouse mechanism, and the liability and redress regime. Each principle or measure deserves in-depth analysis and this paper will analyse the liability and redress regime.

The Nagoya-Kuala Lumpur Supplementary Protocol was adopted in 2010 in response to Article 27 of the Cartagena Protocol on Biosafety to the Convention on Biological Diversity with the aim of contributing to the conservation and sustainable use of biological diversity, taking also into account risks to human health. The Nagoya-Kuala Lumpur Supplementary Protocol takes an administrative approach. By this approach, the competent authorities of the parties to this protocol are required to implement response measures in case of environmental damage to prevent, mitigate, avoid or restore such damage.

The abstract for the annual EELF conference in Copenhagen in 2017

The European Union approved the Nagoya–Kuala Lumpur Supplementary Protocol in March 2013. The European Union also takes an administrative approach regarding the prevention and remedying of environmental damage caused by cultivation of GM crops under the Environmental Liability Directive. The administrative approach in this regard requires competent public authorities to prevent and remedy environmental damage.

The paper will analyse to what extent is the Environmental Liability Directive implementing the international obligations in the field of liability and redress on environmental damage caused by cultivation of GM crops? To be specific, the following questions will be discussed: (1) what are the key elements of the administrative approaches at the international law level and at the EU level? (2) what are their commonalities and differences? And (3) what are the challenges for the European Union to implement its international obligations under the Nagoya–Kuala Lumpur Supplementary Protocol?

The abstract for the annual EELF conference in Copenhagen in 2017

Ancui LIU is a PhD candidate at Maastricht University under the supervision of Professor Marjan Peeters and Professor Ellen Vos. She received her master's degree in environmental law from the Research Institute of Environmental Law, Wuhan University (Hubei, China) in 2013. She is interested in environmental law and biotechnology law. Her doctoral thesis discusses the Chinese regulatory approach towards the prevention of environmental risks and the remediation of environmental damage that may be caused by cultivation of GM crops, with a comparison of that with the EU approach. She hopes to deepen her understanding of EU environmental law by attending the conference.

Dr. María del Carmen Bolaño

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Dr. Iñaki Lasagabaster

Professor of Administrative Law at the University of the Basque Country since 1980 [Faculty of Economics and Business, Bilbao, the Basque Country (Spain)]. Member of the PhD School's Committee. Head of the Biscay's Administrative Law Department. Director of the Master on Fundamental Rights and Public Authorities. Main interests: Environmental Law, Urbanism and Spatial Planning Law, Human Rights and Administrative Law. E-mail: inaki.lasagabaster@ehu.eus

Subthemes: 2) Biodiversity and Nature Management or 4) Raw materials and waste management[1]

Title: Legal Protection of Environmental Soil Quality in Europe: Specific Reference to Contaminated Soil

Abstract: The aim of this presentation is to bring attention to the lack of European legal protection of the soil in general, and contaminated sites in particular.

In contrast with the atmosphere or the water, the soil has not historically been protected as a natural resource in itself. At one time, some European countries even denied its category as a real natural resource. Moreover, the Court of Justice of the European Union misinterpreted the legal concept of polluted soil in some of its judgements. Although they have a different legal regime, the Court equated contaminated soil with waste – Judgment of the Court (Second Chamber) of 7 September 2004, *Van de Walle and Others*, C-1/03.

There have been some attempts to protect the environmental quality of soil but they have not been sufficient so far. The 1972 Stockholm Declaration on the Human Environment mentioned the importance of preserving soil, amongst other natural resources, and promoting its sustainable management; the 1972 Council of Europe's Soil Charter called on states to set a soil conservation policy; other sectoral international instruments have also establish some measures that indirectly protect soil –such is the case of the Ramsar Convention or The Convention to Combat Desertification.

Within the European Union, there was an attempt by the institutions, under the Sixth Environmental Action Programme, to pass a Directive on soil protection but it finally was withdrawn in 2014. Undoubtedly, one of the most relevant European regulations on soil is the Directive 2010/75/EU on Industrial Emissions (Integrated Pollution, Prevention and Control) but it is not sufficient.

This paper examines the legal framework for soil protection in the European Union and focuses on the regulation on polluted sites. Due to the lack of a real European Soil Protection Law, this work provides an overview of the Spanish and the Basque Country's Law on the issue.

[1] Although polluted soil should not be considered waste.

5th EELF Annual Conference "Sustainable Management of Natural Resources - Legal Instruments and Approaches"

30/8-1/9/2017

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ENVIRONMENTAL CHALLENGES IN THE EU INTEGRATION PATH

-SERBIA-

Subtheme: Ecological sustainability – fundamental questions and implications for environmental law and governance

- National legal framework
- Compliance with EU legislation
- Environmental policies and infrastructure

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Prepared by: RAJIC Law Office

Jovan Rajic, attorney at law

March 2017

Abstract:

As a candidate for a full membership in the EU, Serbia struggles to overcome difficulties and to respond to challenges stemming both from EU administration and from developments in global environment and climate reality.

Despite recent improvements, particularly concerning legislative activities, there is still a lot to be accomplished, in particular with raising public awareness and training of government administrative staff. A rare positivity in this respect is the civil sector and its activities, which play a significant role in informational and educational terms.

Environmental protection was not recognized as a priority by any Serbian government so far, with currently only 0.25% of the total GDB allocated for the environmental protection, compared to at least 1.25% in developed countries.

Public debates which represent a substantial tool are not held frequently enough and some significant laws were adopted without any public debate. Furthermore, participation of the interested public and the civil sector is limited in the process of (Strategic) Environmental Assessment adoption, especially concerning the development of small hydropower plants, some of them within the protected areas.

Although we are in the fourth year of accession negotiation process with the EU, Chapter 27 (pertaining to environment) has not been open yet and there are no firm signals when this may happen.

Polluter pays system was introduced into domestic legislation, but has not been properly implemented in practice yet. Moreover, polluters refuse to provide public authorities with the requested information, relying on Article 4 of the Aarhus Convention. No proper procedures or sanctions have been implemented for such behavior so far.

Despite the fact that the relevant EU directive was transposed into domestic legislation and legal framework, one of the major problems is the issuance of integrated permits (for the polluting premises). Only 17 of them were issued so far, with 181 facilities waiting for the permit, with the deadline set for the end of 2020.

Lack of infrastructure is a major deficiency. There are no proper systems for the waste water treatment and despite the fact that more than 100,000 tons of hazardous waste is produced annually, no facilities for its treatment were developed yet.

Finally, the National Strategy for Fight against Climate Changes has not been adopted yet, although team members for its implementation have been selected and funds approved through IPA financing. Although ratified, Paris Agreement 2015 has not been entered into force yet.

On the other side, the reestablishment of the "*green fund*", although with some deficiencies, has been recognized as a significant step in the right direction. The fund is controlled by the Ministry of Finance.

Serbian legislation is constantly being aligned with the Aarhus Convention.

New laws have been introduced recently (pertaining to waste waters, air, land, chemicals), but further activities are necessary in this direction too.

Finally, a new Inspection Supervision Act has been adopted, giving the opportunity for interested third parties to initiate (informal) procedure against environmental polluters. The new act in a clearer way than before determines duties and authorities of environmental inspectors.

Biography:

Jovan Rajic is an attorney at law with more than five years of professional experience in business and commercial law. He earned his law degree in 2011 and has been admitted to the Belgrade and Serbian Bar since 2014.

Jovan gained his professional experience by working in real estate and energy departments of leading law firms in Serbia, representing highly reputable international clients and multinational corporations. He has worked on some of the largest real estate and energy projects in Serbia, Montenegro, and Bosnia and Herzegovina.

He established his own practice in 2014, providing legal consulting and representation before courts and other authorities, to both domestic and foreign clients. His practice follows a boutique concept, focusing on real estate, energy, and environmental matters.

Apart from his native Serbian, he is also fluent in English.