VIII Interdisciplinary Seminar on Climate, Energy and Sustainability

Tuesday, 17th May 2022 09:30 – 13:00

PROGRAMME

Time	Programme
From 09:20	**In-person: Welcoming of speakers and participants** **Online: Zoom room opens**
09:30 – 09:40	**Welcome and Introduction to the VIII Interdisciplinary Seminar on Climate, Energy and Sustainability** ***Associate Prof. Beatriz Martinez Romera,*** Centre for International Law, Conflict and Governance (CILG), Faculty of Law, University of Copenhagen (UCPH) ***Dr. Alessandro Monti,*** Postdoc, Faculty of Law, UCPH, Vice President Energy Crossroads Denmark
09:40 – 10:40	**Session 1** **Chair: *Dr. Linnéa Nordlander,*** Postdoc, Faculty of Law, UCPH, Vice President Energy Crossroads Denmark 1. ***Abigayil Blandon,*** MSc, PhD Candidate, Stockholm Resilience Centre, Stockholm University**,** *Alternative approaches to sustainable seafood – investigating the Japanese and Swedish markets* 2. ***Francesco Venuti*****,** PhD Candidate, University of Eastern Finland, *Governing Nature-based Solutions for Urban Flood Management in Finland and Italy: A Legal Perspective on Sustainable Transitions* 3. ***Veera Pekkarinen***, PhD Candidate, University of Eastern Finland, *Informal international methane initiatives' contribution to global methane governance*

	4. ***Manolis Kotzampasakis,*** PhD Candidate, University of Groningen, *Intercontinental Shipping in the EU ETS: A 'Fifty-Fifty' Alignment with the Law of the Sea and International Climate Law?*
10:40 – 10:50	***Coffee Break***
10:50 – 11:50	**Session 2:** **Chair: *Dr. Justine Bendel,*** Postdoc, Faculty of Law, UCPH **1.** ***Federica Catonini*****,** LLM student, Faculty of Law, UCPH, *Sustainable Ocean Governance in the EU: reconciling biodiversity protection and offshore wind energy development in EU law* **2.** ***Saleh Anisi,*** PhD Candidate, Islamic Azad University, Tehran *Sustaining MENA 's Cryptocurrency Minings in the Green Mirror of Glasgow Pact* **3.** ***Elisa Cavallin****,* PhD Candidate, Hasselt University, *Pyrolysis plants, pyrolysis of biomass waste and circular economy: how(and how well) does the Industrial Emissions Directive deal with these topics?* **4.** ***Sébastien Noël***, PhD Candidate, University of Eastern Finland, *Towards a relaxation of the Subsidies rules for Renewable Energy in EU's new generation agreements*
11:50 – 12:00	**Concluding Remarks** ***Associate Prof. Emmanuel Raju,*** Copenhagen Center for Disaster Research (COPE), Department of Public Health, University of Copenhagen ***Associate Prof. Beatriz Martinez Romera,*** Centre for International Law, Conflict and Governance (CILG), Faculty of Law, University of Copenhagen
12:00 – 13:00	***Lunch and Networking (hybrid) led by:*** ***Dr. Alessandro Monti,*** Postdoc, Faculty of Law, UCPH, Vice President Energy Crossroads Denmark ***Danny Mariana Ortiz***, Casus Clima, UCPH

ABSTRACTS:

Abigayil Blandon, MSc, PhD Candidate, Stockholm Resilience Centre, Stockholm University

Alternative Approaches to Sustainable Seafood – Investigating the Japanese and Swedish Markets

Global demand for seafood is set to double by 2050, but there are many sustainability issues with sourcing seafood that need to be overcome. Markets at the forefront of seafood sustainability rely heavily on traditional certifications to prove that they are sourcing from third party accredited sustainable fisheries. However, this is not always feasible in markets with different structures, different supply chain networks and different abilities to acquire costly and resource intensive certifications. We therefore need to broaden the toolbox for sustainable seafood sourcing approaches. To explore how to do this, we plan to do a deep dive comparison between two contrasting seafood markets: Japan and Sweden. Previous research in Japan has shown that complex supply chains may act as a barrier to the traditional certification schemes (Blandon and Ishihara 2020). We also hypothesise that the growth of certification schemes in Japan will have a limit due to the fact that they are primarily used as a way to differentiate products from competitors', rather than as a retailer requirement (Ishihara et al. 2022). The project aims to clarify this, and explore alternative approaches to seafood sustainability that would suit a market structure such as that found in Japan. We hope that Sweden will provide a suitably contrasting market with different motivations and barriers for implementing different sourcing approaches, with opportunities for learnings between the two countries.

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Francesco Venuti, PhD Candidate, University of Eastern Finland

Governing Nature-based Solutions for Urban Flood Management in Finland and Italy: A Legal Perspective on Sustainable Transitions

Urban flooding is one of the most destructive consequences of climate change in the short term. Concurrently, up to 68% of the world population is expected to live in cities by 2050. Nature-based Solutions (NbS), defined as actions inspired by, supported or copied by nature, can provide many co-benefits to humans and nature, such as resilience to floods and disaster risk reduction. NbS are niche measures that can accelerate the transition towards urban sustainability. However, NbS scholars are often naïve to legal frameworks that influence policy and on-ground actions. The EU has established several regulatory instruments to address the issue of floods, but none of these provides any mechanism to practically foster NbS implementation for floods management. This research utilises Soininen *et al.*'s framework on the roles of law in transitions and Geels' transition theory to examine the role of law in promoting rapid transitions to flood management and climate resilience in Finnish and Italian cities through NbS. Literature reviews, interviews, focus groups, doctrinal analysis, and case studies will allow this research to answer the following questions: how can a legal perspective be integrated into Geels' transition theory? How does the EU currently regulate NbS for flood and stormwater management and how can the law support the implementation of urban rain gardens, bioswales and

wetlands? How did Finland and Italy implement the EU regulations on flood and stormwater management? What is the perspective of urban officials and policy-makers on how NbS for flood and stormwater management are put into practice? Is there a gap between law in books and law in action? The outcomes of this research will enhance inter- and multi-disciplinarity of the literature on transitions, introduce mechanisms that endorse transition planning and management, and broaden the legal knowledge in the field of NbS.

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Veera Pekkarinen, PhD Candidate, University of Eastern Finland

Informal International Methane Initiatives' Contribution to Global Methane Governance

How informal international methane initiatives can complement formal legislation on methane? This study examines informal methane initiatives' contribution to global methane governance with the lens of increasing polycentricity of climate governance. Along with the necessary cuts in fossil-fuel-related CO2 emissions, methane mitigation is important to implement the global goal of limiting global warming to 1.5°C agreed under the Paris Agreement. The legal and regulatory landscape for methane is fragmented and multilayered. Methane is covered by the formal legislation of the UNFCCC regime, including the Kyoto Protocol and the Paris Agreement. In addition, there are various initiatives that involve states and non-state actors, including the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) and the Global Methane Initiative (GMI), which are developing norms and policies to govern global methane emissions. Indeed, global action on methane is a good example of the greater polycentricity of climate change governance. Global climate governance is increasingly polycentric involving various actors beyond states — non-governmental organisations, businesses, and sub-national governments, which collaborate across borders. These non-state actors are setting standards, producing and disseminating information, and coordinating actions to mitigate climate change. This article examines how various informal initiatives targeting methane can complete and/or contradict formal methane legislation. The study is based on my PhD research work that is part of the ERC Project ClimaSlow led by Prof. Kati Kulovesi. The project combines climate law and climate science to identify opportunities to enhance the global legal and regulatory framework for reducing short-lived climate pollutants (SLCPs).

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Manolis Kotzampasakis, PhD Candidate, University of Groningen

Intercontinental Shipping in the EU ETS: A 'Fifty-Fifty' Alignment with the Law of the Sea and International Climate Law?

Despite its significant and growing contribution to climate change, international maritime transport remains without an effective regulatory framework for reducing greenhouse gas (GHG) emissions. After two decades of insufficient progress by the International Maritime Organization (IMO), in July 2021 the EU took the lead and initiated a legislative process to include a share of international shipping in its Emissions Trading System (EU ETS). Under the proposal, the EU ETS aims to impose an emissions cap and charge a carbon price related to fifty percent (50 %) of the GHG emissions from any intercontinental voyage that starts or ends at a port of the European Economic Area. All large commercial vessels are to be covered by the scheme, regardless of their flag. Certain stakeholders in

the international maritime sector oppose this ETS extension as an overstretching unilateral measure, bringing up memories from ten years ago when the EU's attempt to extend its ETS to intercontinental aviation had been suspended after an international political backlash. Surprisingly, in its Impact Assessment accompanying the latest proposal, the European Commission did not evaluate the compatibility of the envisaged maritime ETS with international law. While earlier studies examined potential legal barriers to the theoretical prospect of including international shipping in the EU ETS (e.g. Ringbom, 2011; Hermeling et al., 2015), with deviating conclusions, the feasibility of this peculiar 'fifty-fifty' scope has not yet been analysed from the perspective of international law. To fill this gap, this paper maps the jurisdictional possibilities and limitations for the endeavour, focusing on two pertinent branches of international law: the law of the sea and international climate law. A doctrinal analysis of the applicable legal sources, in light of broader insights from law and economics literature on maritime and aviation emissions regulation, suggests that international law places considerable but not insurmountable limitations to the proposed 'fifty-fifty' scope of the maritime EU ETS. On that basis, suggestions are formulated with the aim to better align the European scheme with the EU's international legal obligations. The paper demonstrates that the legal exercise of reconciling the clash between the principles of non-discrimination and Common but Differentiated Responsibilities (CBDR) is more attainable in the case of a bottom-up, regional market-based measure for the reduction of maritime emissions, compared to a top-down, global one. As the legislative procedure for the expansion of the EU ETS to maritime transport is still unfolding, this contribution provides a timely opportunity to place the rule of international law at the centre of the policy discourse on shipping emissions, both within and outside Europe.

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Federica Catonini, LLM Student, Faculty of Law, UCPH

Sustainable Ocean Governance in the EU: Reconciling Biodiversity Protection and Offshore Wind Energy Development in EU Law

The energy sector is a primary contributor to climate change, contributing three-quarters of worldwide CO2-equivalent emissions. Thus, transitioning to clean, renewable energy technologies is crucial to reduce emissions and counter climate change. The EU has set ambitious goals to transform the energy sector. To this aim, in February 2022, the EU Parliament issued a resolution to accelerate offshore renewables, particularly offshore wind, setting the target of 350 GW of offshore renewables to be constructed in Europe by 2050. Although undeniably necessary to fight climate change, indiscriminate development of offshore wind may adversely impact biodiversity. During all phases of deployment, offshore wind technologies may have negative effects on marine biodiversity, and lead to habitats and species loss. Therefore, it is vital that solutions are found to ensure that offshore wind does not put a strain on nature and wildlife, to achieve a truly sustainable 'blue growth'. Sound environmental legislation and sustainable ocean governance rules have may offer a solution to this issue. This presentation investigates the issue from the perspective of EU law, by analyzing the relevant EU legal framework on environmental protection and ocean governance. Particularly, aims to answer the question '*how can EU environmental and ocean governance legislation contribute to ensure that marine biodiversity is safeguarded when developing offshore wind?*'.

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Saleh Anisi, PhD Candidate, Islamic Azad University, Tehran

Sustaining MENA's Cryptocurrency Minings in the Green Mirror of Glasgow Pact

The Unites Nations framework convention on climate change was the first legal document that approved by the international community. Subsequently, there were many negotiations and many documents were compiled and approved. Glasgow pact is the last legal document approved in 2021 by the Paris agreement parties. On the other hand, with the passage of time and the desire to develop industry and economy, it led to an increase in greenhouse gas emissions. By 2021, the goals of these documents have not been fulfilled, causing unprecedented concerns. Today, in 2022, mining of cryptocurrencies is one of the most important things that mankind is doing. However, this leads to a lot of economic developments, but it has a lot of negative impacts on the environment. These impacts divide to regional and global which the most important of them is the increase in greenhouse gas emissions and the escalation of climate change. According to the researches done in this field, the countries of the MENA region have a lot of desire to mining, while mining in this region does not seem to be so green. it seems that International laws and regulations in the cryptocurrency minings field are not sufficiently developed. On the other hand, it seems that Glasgow Pact's provisions can heavily help the sustaining of the minings in the field of climate change. Mitigation is one of the most important commitments that the treaty has imposed on its various ways on member states. Revision of NDCs, international cooperation, Net Zero Plan by 2050 and common but differentiated responsibilities are from the most important commitments that the treaty has imposed on governments again. the high demand energy consumption in cryptocurrency minings causes us to give readers interesting and practical suggestions in green mirror of Glasgow pact and international climate law, especially for MENA region. These suggestions include design a regional and special treaty for the MENA Which includes general indexes. These indexes have a positive impact on the development and approval of NDC on each member and somehow create integrity in the region. On the other hand mentioning a new approach for the global and regional governance of cryptocurrencies with an environmental approach, is the other our aim.

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Elisa Cavallin, PhD Candidate, Hasselt University

Pyrolysis Plants, Pyrolysis of Biomass Waste and Circular Economy: How (and How Well) Does the Industrial Emissions Directive Deal with These Topics?

Pyrolysis is the process of heating biomass (or other feedstock) in low-oxygen or oxygen-free conditions and at temperatures that generally range between 300 °C and 1000 °C (but usually below 700 °C). In this thermal process, large, complex (biomass) molecules are broken down into smaller, simpler gas, liquid and char molecules, making this technology an interesting one for circular economy purposes, especially for the production of waste-based (energy) products, including (advanced) biofuels. Directive 2010/75/EU (the Industrial Emissions Directive (IED)) has introduced some novelties with regard to pyrolysis and pyrolysis plants, which, however, present some issues. Doubts

as to the correct interpretation of the provisions and, thus, of the legal regime applicable to pyrolysis plants might undermine the use of this technology and affect the large-scale deployment of interesting solutions based on pyrolysis of biomass waste for the production of waste-based (energy) products. The presentation aims at shedding some light on the legal status of pyrolysis and pyrolysis plants treating biomass waste at the EU level, identifying potential lacunae or lack of clarity and suggesting policy recommendations. It shows how the current framework regarding these installations is, at times, unclear and lacunous, resulting in uncertainty concerning the scope of certain provisions and the application of the IED and leading to potential significant differences between Member States.

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Sébastien Noël, PhD Candidate, University of Eastern Finland

Towards A Relaxation of the Subsidies Rules for Renewable Energy in EU's New Generation Agreements?

I will address how the EU's renewable and low-carbon hydrogen policy affects the World Trade Organization rules (WTO). Hydrogen, according to the EU Commission fulfils both the Paris Agreement and European Green Deal's objective of carbon neutrality by 2050, in hard-to-electrify sectors. Hydrogen, in essence, emits zero emission, when used as a raw material in oil refineries, in the chemical industry (90%); as well as in the iron and steelmaking industry (10%). It, on the other hand, may also carry energy to power fuel cells electric vehicles (FCEVs), heavy-duty, railroad, and maritime transport. Hydrogen's current production, predominantly originates from fossil fuels sources (natural gas, coal, and petroleum oil), compared with renewable energy ("green hydrogen"), however. Hydrogen could presumably be considered as a "like" product under the WTO, as an invisible, odorless gaseous or liquid fuel. Yet, its manufactures entail significantly-distinct greenhouse gas emissions (GHG), however. GHG, as such, is the very criterion that the EU and the consortium "CertifHy" use to not only distinguish hydrogen, but implement energy and internal market policies. Differentiation, essentially, occurs between renewable, low-carbon productions, and the steam-methane reforming (grey hydrogen) or coal gasification (brown or black hydrogen) hydrogen productions. Such a differentiation signifies "process and production methods" (PPMs), whereby the EU regulates hydrogen's production stage, or manufacture to retain positive environmental externalities. PPMs include, for instance, renewable hydrogen utilized as transport fuel under the renewable energy directive (RED II recast). I will use the legal dogmatic method to examine whether hydrogen is a "like" product under the General Agreement on Tariffs and Trade (GATT) and the Agreement on Technical Barriers to Trade (TBT Agreement), while considering its PPMs. I will consequently assess whether PPMs justify an otherwise WTO-inconsistent measure under said agreements (general exception: environmental protection).