

Dysfunction and Disruption: Disaster Risks and the Law

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My life as a law student started with a bang. On 11 September 2001 I was less than a month into my law studies. And the event became a *gestalt switch* for me.

I remember engaging in a long discussion with my in-laws at the time, arguing that this was the first visible crack in the world order itself; the initial indication of a looming global collapse: fights over scarce resources, limited space and disbursed moralities. While this could seem like a self-aware and bored 19-year-old law student's attempt to create attention or to spur yet another provocative, principled debate – it truly wasn't. It felt different. For me, 9-11 was *the* moment. The moment in which I was for the first time confronted with a deep sense of vulnerability – not as a realization of personal mortality, but rather as an apprehension of central societal and cultural institutions' fragility. The realization that the world I knew was, and is, at risk.

During my studies I found this materialized mainly as the abstract all-encompassing fear of terrorism – and that this should be understood and studied from a legal perspective through the basic relationship between the individual and the state. Through this lens, security is the main theory to understand the world, and human rights the obvious battleground. However, this perspective somehow fell short in encapsulating the above described feeling of fragility. Or rather, the way the world actually *did* change could not be understood or even approached solely through an idea of *securitization*¹ or by observing the fight over human rights. The world was indeed not governed solely by the fear of terror or war, but rather in a complex assemblage of risk(s) of different orders and origins.

I came to study risks with potentially disastrous consequences or, in following, simply disaster risk. In a traditional risk framework, some might refer to these as low probability high impact risks or extreme risk. On the joyful occasion of the relaunch of *EJRR*, I will offer an account of such risks' significance for law in general, and legal scholarship in particular.

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¹ Ole Wæver, "Aberystwyth, Paris, Copenhagen – New 'Schools' in Security Theory and Their Origins between Core and Periphery", *International Studies Association* (Montreal 2004); Ole Wæver, "Peace and Security: Two Evolving Concepts and Their Changing Relationship" in Hans Günter Brauch et al. (eds), *Globalization and Environmental Challenges: Reconceptualising Security in the 21st Century* (Heidelberg: Springer Verlag 2008) 99; Didier Bigo, "When Two Becomes One: Internal and External Securitizations in Europe" in Morten Kelstrup and Michael C Williams (eds), *Internal Relations and the Politics of European Integration* (London: Routledge 2000).

I. DISASTER RISK

For most risk (regulation) scholars, I realize, risk is defined as something deliberately undertaken (by law).² That is, risk is not something outside or contrary to law, but rather a potentially negative output deliberately co-opted by law: a subsection of legal decisions with potentially negative consequences. Risk is, from this perspective, something per definition embedded within a legal framework, and accordingly manageable through legal remedies.

I am not talking about that kind of risk. For me, risk is the effects of uncertainty,³ and the particular risks I am studying are those with potentially disastrous⁴ consequences.

Accordingly, most disaster risks are not undertaken intentionally. There seem to be two overall categories of such risks: First, those risks presented by our natural environment, take as example thereof risks of earthquakes (geological), hurricanes (meteorological) or asteroid impacts (extraterrestrial). While our accelerating societal vulnerability towards such hazards is driven by social processes – like urbanization, societal interconnectivity (infrastructural as well as social), and functional differentiation – these hazards would be risks nonetheless, and are certainly not deliberately accepted by law. Second, those risks, perhaps even the majority of disaster risks today, emerging as dysfunctions from other social processes or institutions. A breakdown of the energy production in the Netherlands presents a disaster risk because the Dutch population relies on energy. Thus, this risk is not intentionally accepted or co-opted by law, but rather an inherent dysfunction of relying on centralized energy production. In other words, some of the most prevalent disaster risks against modern society are dysfunctions of social processes that we clearly benefit from. Take reliance on infrastructure, human habitation near coastal areas, or effective food production as examples thereof.

Obviously, these two “categories” of risks are increasingly hybridized, as the same social processes essentially accelerate societal vulnerability towards both: whether these processes create new risks or amplify pre-existing risks seem less important.

A central problem in dealing with this, from a legal perspective, more elusive and abstract category of risks is that the risks no longer come in legal bite-sizes. They are often woven into a complex web of social structures, culture or marked interests.

Furthermore, they are not quantified, and often not quantifiable in any meaningful manner.⁵ If risks are understood as hazard * consequence (vulnerability*exposure*utility), then the ‘utility’ are per definition of a nature that makes quantification problematic, if not unethical, as they regard human life. They are furthermore dynamic and complex, as they emerge and function in a complex adaptive system, and thereby impossible to finitely determine both in terms of temporality and spatiality. This means that a strict traditional

² See also the German sociologist Niklas Luhman: “risk refers to decisions which accept the chance of possible negative consequences”: Niklas Luhmann, *Law as a Social System*, ed. Fatima Kastner et al., (Oxford: Oxford University Press 2004) 155.

³ A definition in line with the one applied in the ISO standard for Risk Management ISO31000: “effect of uncertainty on objectives”.

⁴ Defining disaster is something that takes an entire article on its own. For the purpose of this essay, maybe it would be sufficient to understand this as events or processes with very serious consequences causing death and destruction.

⁵ Obviously this is an incredibly controversial claim so early in the text, see e.g. otherwise Richard A Posner, *Catastrophe : Risk and Response* (Oxford: Oxford University Press 2004) 322.

quantitative idea of risk, as the quantification of uncertainty with negative impact, simultaneously is a somewhat *thin* methodological tool for the actual process of dealing with them.⁶ A better way of phrasing this might be to suggest that the other elements of understanding risk, namely vulnerability and exposure, come to take on a more crucial role when dealing with these risks.

To sum up, for me, disaster risk is not deliberately entrenched in the already-existing structures of society. Accordingly, this subsection of risk regulation is a particularly interesting enterprise, and a crucial governance aspect in meeting the broader challenge of living in a volatile world.

II. (DISASTER) RISK REGULATION

Traditionally these disaster risks have been considered as disruptions to law or, more accurately, have been approached through some version of legal exceptionalism: states of emergencies, acts of God or necessity.⁷ This is not the case today. In the course of the last 30 years, an impressive body of regulation addressing all phases of managing disaster risks has emerged across the globe. A couple of pioneers have explored this emerging field, and today function as landmarks in the landscape of disaster risk regulation. This is not least the case for studies into compensational schemes after disaster;⁸ how we can create better and more just preventive efforts;⁹ reduce societal vulnerability,¹⁰ and behavioral schemes¹¹ or whether international law has a role to play in the management of global risks.¹²

In the US so-called disaster law is an emerging field that deals with a broad host of the issues relevant to regulate disastrous risks. At the international law level, the efforts of IFRC have been tremendous in building up a knowledge base for regulating disaster risks, and by continuously offering advice and support for national governments to attempt to reduce disaster risks.

Lawyers traditionally tend to engage themselves in issues that fortify the presumption that law is indeed a coherent, solid system: a system just awaiting structural minds' efforts to organize it. Disaster risk, as set out above, challenges this. Thus, the regulation of disaster risk is engaging exactly because it does not lend itself to a finite solution or doctrinal settlement. It is not, in the words of Kuhn, simply *puzzle-making science*,¹³ but

⁶ See this argument unfolded in Kristian Cedervall Lauta and Michael G Faure, "Disaster Risk Management" in Adam Burgess, Alberto Alemanno, and Jens O Zinn (eds), *Routledge Handbook of Risk Studies* (London: Routledge 2016) 179.

⁷ For a more elaborate version of this argument see Kristian Cedervall Lauta, *Disaster Law* (Routledge 2014).

⁸ Daniel Farber and Michael Faure (eds), *Disaster Law* (Edward Elgar Publishing 2010); Michael Faure and Andri Wibisana (eds), *Regulating Disasters, Climate Change and Environmental Harm. Lessons from the Indonesian Experience* (Cheltenham: Edward Elgar 2013).

⁹ Daniel Farber et al., *Disaster Law and Policy* (2nd edn, Wolters Kluwer Law & Business: Aspen Publishers 2010); Rosemary Lyster, *Climate Justice and Disaster Law* (Cambridge University Press 2016).

¹⁰ Robert Verchick, "Disaster Justice" (2012) 23 *Duke Environmental Law and Policy Forum*; Robert Verchick, *Facing Catastrophe* (Harvard University Press 2010).

¹¹ Alberto Alemanno (ed.), *Governing Disasters – the Challenges of Emergency Risk Regulation* (Edward Elgar 2011).

¹² See not least Anne van Aaken's recent special issue in *Global Policy*: Janis Antonovic and Anne Van Aaken, "Is International Law Conducive to Prevent Looming Disasters?" (2016) 7(1) *Global Policy*.

¹³ Thomas S. Kuhn, *The Structure of Scientific Revolutions* (2nd edn, University of Chicago Press 1970).

something that expands and challenges basic categories, presumptions and methodologies. It is an always moving, complex field, that calls for deep interdisciplinary insights.

The recent and still ongoing explosion of legal cases all across the globe on penal and private liability for disasters and climate change are excellent examples thereof.¹⁴ While some might see these cases as ordinary tort or penal case, they simultaneously challenge our traditional perception. Seen from a doctrinal law point of view, the cases are severe stress tests of the sustainability of our present concepts' causality or fault.¹⁵ Seen from a broader scientific, societal perspective, the cases challenge our notions of what is stemming from natural respectively social processes.

The regulation of disaster risks is an emerging and dynamic, yet still somewhat dispersed, field of study. Hopefully the *European Journal for Risk Regulation* will continuously contribute to synthesize the field in the near future.

III. FUTURE RISK REGULATION RESEARCH

Even with these efforts in mind, there is room for substantial improvement in the field. Two trends seem particular worrisome: disaster risks are simultaneously getting increasingly global and increasingly extreme.

The longest stretch of global policy making since the end of Second World War came to an end with the conclusion of Habitat III¹⁶ in October 2016. Before that the global community had adopted the Sendai framework,¹⁷ the Addis Ababa agenda,¹⁸ the new sustainable development goals (SDGs)¹⁹ and, of course, the Paris Agreement²⁰ all in less than 20 months. Entrenched in all of these processes is the challenge of global risk governance: the build up of institutions able to effectively and with the necessary legitimacy to address these complex, yet critical, risks. Even in light of, or perhaps because of, this impressive body of global governance instruments, the challenge to effectively safeguard global public goods persists. That is, we need to further study and develop legal institutions able to address risks to our shared public goods: the air, the sea or the atmosphere, and figure out how this impressive array of global agreements might interact.

It seems obvious at this stage to draw out climate change as a particularly wicked law and policy problem, and thereby an area in which more thinking and concrete legal

¹⁴ For an overview of the impressive body of ongoing and recently decided upon penal cases after disasters, see Denis Binder, "The Increasing Application of Criminal Law to Disasters and Tragedies" (2016) 30(3) *Natural Resources and the Environment*.

¹⁵ See, in this regard, the symposium in *EJRR* on the so-called L'Aquila Seven, in which several of the authors discuss how law is ill-equipped to deal with the dilemmas posed by the facts of the case, (2014) 2 *EJRR*.

¹⁶ Draft outcome document of the United Nations Conference on Housing and Sustainable Urban Development (Habitat III), A/CONF.226/4, Quito, 17–20 October 2016.

¹⁷ The Sendai Framework for Disaster Risk Reduction 2015–2030 was adopted at the Third United Nations World Conference on Disaster Risk Reduction, held 14–18 March 2015 in Sendai, Miyagi, Japan.

¹⁸ Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) Resolution 69/313 adopted by the General Assembly on 27 July 2015.

¹⁹ Transforming our world: the 2030 Agenda for Sustainable Development. Resolution 70/1 adopted by the General Assembly on 25 September 2015.

²⁰ The Paris Agreement (2015), available at: <http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf> (last visited November 2016).

innovation is called for – not least in the area of extreme weather. We will in the coming years increasingly be exposed devastating and destructive natural hazards all over the world.

A problem particularly prevalent in climate change, but emblematic to many modern risks is the deep cultural, institutional and economic lock-in our communities are placed in. That is, the risks towards our society exist as an integral part of other social trajectories on which we depend. In the case of climate change, the global energy- and transportation sectors are driving forces behind the market-economy, infrastructure and the modern state as such, but simultaneously drive one of the biggest threats against it. While it might be possible to overcome regulatory captures, through increased political awareness and co-participation, it seems substantially more complicated to deal with industries on which the growth of the society fundamentally balances. While many of the solutions, and innovative ideas, in this field obviously are to be developed in other fields than law, law and policy has a tremendously important role to play going ahead.

The other trend developing in tandem with globalization is the increasing extremity of the risks we are confronted with. Accordingly, in the last decades we have witnessed a steadily increasing awareness of so-called existential risks, and most of these risks are driven by fully anthropogenic processes. Obviously, with the expected accelerating knowledge and technology development, new possibilities to meet some of these risks may arise, however the very same processes also bring along new risks.

Law has traditionally not been afforded a central role in the management of such risks. It seems generally assumed that governance in general, and law in particular would fall short in actually managing risks against humanity. Therefore the main driving forces in field have been based within hard science²¹ and philosophy departments,²² and not among lawyers. I believe this is a critical gap in the literature. Only 25 years ago an accelerating depletion of the earth's protective ozone layer was detected. The "hole" ripped in the ozone layer threatened to increase human exposure to harmful UV, bringing terrible consequences to the way we live our lives. Today, the problem is solved, and it was regulation that closed the hole. Thus, the adoption and implementation of the Montreal Protocol of 1987 effectively halted the depletion of the ozone layer, and saved the world.

Even though these risks' management might appear to transgress our present institutional frameworks, it still contains a huge, untapped potential for human governance, hereunder for regulation.

Fifteen years down the road, I am back at the law school in Copenhagen. From the window of my office I overlook an area of the city that has remained largely unchanged for the last 200 years – an outlook that brings daily consolation in a work life dedicated to disasters. Even then, it does not seem that the global outlook has become less disastrous in the last 15 years. Contrary, it seems that even more profound risks might lure in the world we presently float towards. The world is, in other words, ever more at risk, and the legal community in general and *EJRR*-community in particular will therefore have a crucial role to play in the years to come.

²¹ See in this context the great work carried out by Martin Rees and his Centre for the Study of Existential Risk at University of Cambridge.

²² See the works of Nick Bostrom and his team at Oxford University.