

## BERICHTE / REPORTS

### **Fukushima Five Years On – Legal Fallout in Japan, Lessons for the EU**

Workshop at the University of Cambridge on 4 and 5 March 2016

#### I. OVERVIEW

Just a few days shy of the fifth anniversary of the earthquake and tsunami that led to the 2011 Fukushima nuclear catastrophe, over 70 experts, diplomats, lawyers and senior academics from Japan, the UK and other European countries gathered at Darwin College, Cambridge, to discuss the legal fallout in Japan and lessons (not yet) learned in Europe. The workshop was convened by Affiliated Lecturer *Julius Weitzdörfer* with generous support of the Volkswagen Foundation and the Interdisciplinary Centre for East Asian Studies (IZO), Frankfurt, as well as the Faculty of Law, the Centre for the Study of Existential Risk (CSER), and Darwin College, Cambridge.<sup>1</sup>

The event started off with a keynote lecture by *J. Mark Ramseyer*, Mitsubishi Professor of Japanese Legal Studies at Harvard University, on “Nuclear Power and the Mob: Extortion and Social Capital in Japan”. Relying on demographic and criminological data, he began by showing how Japanese regions that were to host a nuclear power plant had usually already been in a disadvantaged situation prior to the construction. Having a low employment rate to begin with, these places accommodated the power plants for financial reasons. However, two years before plans to build a reactor were officially announced, the rates of extortion increased. He explained this increase by the moving in of the Japanese mafia. Since power plants were very high non-transferable investments, they seemed to be ideal objects for extortion, thus attracting organised crime. Once in the area, the mob would then also target the normal population leading to an increase in the instances of extortion overall. This made the situation for young families – the group with the highest social capital for the local community – unappealing, so that many of those who were most invested in the community left (even though this had yet to be statistically proven), which in turn aggravated the overall situation: reliance on government subsidies increased, and divorce rates rose. Firms stayed away, and unemployment climbed.

In the welcome address, Professor Lord *Martin Rees*, Astronomer Royal and co-founder of Centre for the Study of Existential Risk at the University of Cambridge, fo-

---

1 This report is based on personal notes of the author, partly drawing on conference materials by J. WEITZDÖRFER, available at <http://www.law.cam.ac.uk/press/events/2015/11/expert-workshop-fukushima-five-years-legal-fallout-japan-lessons-eu>.

cused on present and future challenges for science and society, using the examples of climate change and future technologies. In this regard, science might provide tools such as robotics, artificial intelligence and biotechnology. However, this would also give rise to many regulatory issues for the legislature and the legal profession to address, warning that small risks tended to be worried about too much, while greater risks were ignored. He ended his address with the observation that even where regulations are in place, the question of their enforcement remained. While earlier in the development of technology, moratoriums may have worked, today, “everything that can be done, will be done”.

In his brief introduction, *Julius Weitzdörfer* set the tone for the second day of the workshop, reminding the participants that unlike the earthquake and the tsunami, the nuclear catastrophe was still an on-going situation in Japan. As 14 out of 28 EU member states had decided to go forward with nuclear power, legal solutions for this technology would thus remain very important for Japan as well as for the European Union.

## II. LAW AND THE (POLITICAL) ECONOMY

Directly opening the first session, *Julius Weitzdörfer* gave his talk on “Nuclear Power, Regulatory Capture, and the Case of Fukushima”, addressing nuclear liability and insurance in Japan. He explained that under the post-war influence of the US, it was decided that liability should be exclusively borne by the operators, rather than the suppliers, of nuclear technology – a system adopted in most domestic and international regimes. In Japan, liability in theory was unlimited – a comparatively rare feature – and strict, albeit softened by generous state-aid for compensation and subject to an exemption clause in the event of an exceptional natural disaster. While the earthquake and tsunami of 3/11 could be seen as such an exceptional case, that clause was largely not invoked by the operator TEPCO. This had led to the political decision to create a financing cooperation, largely externalising costs to support an otherwise insolvent operator and making it difficult to determine who would ultimately bear the burden. At the same time, there was no sufficient insurance, since regulations stipulated that only a fraction of the actual costs of a nuclear catastrophe needed to be insured. This worked as a hidden subsidy and helped to keep nuclear energy costs low and profits high, while failing to provide incentives to invest in safety to decrease insurance premiums. He then moved on to a comparison with the situation in the EU member states, where 17 different combinations of international regimes formed a patchwork system, constituting its own challenge. More importantly, nothing substantially had changed with regard to the insufficient liability and insurance regimes in the EU.

*Frank Rövekamp*, Professor at Ludwigshafen University of Applied Sciences, spoke about “Nuclear Crisis Management: Lessons from Fukushima” by addressing the problems that arose when dealing with the nuclear catastrophe in Fukushima. He identified intra-organisational coordination problems, inter-organisational coordination problems as well as legal uncertainty and unrealistic regulation that had led to more radiation

emissions, successive hydrogen explosions, evacuation problems and general delays in responses, which had put great areas of Eastern Japan at risk. Drawing on his insights from translating the former Japanese Prime Minister's autobiographical account of the Fukushima crisis,<sup>2</sup> he then identified similar faults in the German response set-up and concluded that clearer responsibilities (especially on-site for the operator) as well as better coordination (also across federal and state borders) were needed. In order to set this up, worst-case scenarios should be the guideline for disaster preparation, regardless of their likelihood.

*Michael G. Faure*, Professor at Maastricht University, followed up on *Julius Weitzdörfer* in addressing "The Law and Economics of Nuclear Liability" in the morning keynote lecture. He focused on the relevant international conventions which – as he pointed out – were grossly insufficient to respond to a nuclear disaster due to their strictly limited liability of the operator only and low financial caps. Depending on the applicable convention, the sums would only cover one thousandth to one hundredth of the estimated damage. He then drew from domestic nuclear liability regimes as well as regimes of natural hazards and terrorism to show that liability could be much higher, taking into account the actual amount of potential damage, and would not even have to rely on state subsidies. However, to implement a different regime, a 'counter-lobby' that could challenge the strong nuclear power lobby would be necessary.

### III. CHALLENGES FOR JAPAN – LAW AND SOCIETY

The second session focussed on the challenges for Japan that had been brought about by the nuclear catastrophe. Before devoting his speech to one of the saddest and most delicate aspects, "Adequate Causation and the Nuclear Suicides", *Hiroki Kawamura*, post-doctoral researcher at Frankfurt University, briefly explained the three avenues to compensations for victims: direct negotiations with the operator TEPCO, an ADR centre that had been established by the government to cope with the great number of cases, and lawsuits in court. He then turned to a decision of the Fukushima District Court from 24 August 2014 where the court had ordered TEPCO to pay compensation to the heirs of a woman who had committed suicide after being evacuated and suffering from depression. This decision had been the first to find an adequate causal link between the evacuation and the death, established by relying on case law in traffic accident cases. Additionally, the court relied on the assessment of stress levels developed in cases of work-related suicide. According to the speaker, the decision has encouraged other people affected by the disaster to seek compensation – with the court declaring the loss of evacuees to be that of home, family life, and town community.

---

2 N. KAN (translated into German by F. RÖVEKAMP), Als Premierminister während der Fukushima-Krise (Munich 2015).

*Saori Kawazoe*, a doctoral candidate at Waseda University, introduced “Nuclear Evacuation Orders and their Social Consequences”. Adopting an approach of the sociology of law, she reported on her findings in the city of Iwaki, where she had been conducting fieldwork for several years. This community located in the Fukushima Prefecture had been affected by the triple catastrophe. Additionally, in the aftermath, Iwaki had been hosting evacuees who had been officially recognized victims by TEPCO (a status that had not been granted to most residents of Iwaki, who suffered mainly from the earthquake and tsunami). This distinction in treatment had led to a complex situation in the city, where it was hard for original residents to accept the situation of evacuees while feeling that their own suffering was not recognised.

“The Trial against TEPCO Executives” was discussed by *Kazushige Doi*, Associate Professor of criminal law at the University of Kita-Kyushu. These on-going proceedings question whether responsibility for this man-made (as determined by a commission in 2012) nuclear catastrophe is attributable to individuals. Victims had demanded that charges of professional negligence under Art. 211 of the Japanese Penal Code<sup>3</sup> be brought. This crime requires, inter alia, foreseeability and preventability of the harm. The prosecution had remained doubtful that foreseeability could be proven, given the fact that official estimates regarding possible heights of a tsunami had differed before 2011. Furthermore, even if the highest estimates were to be taken into account for preventive measures, the prosecution had found that this would not have prevented the catastrophe since, inter alia, the construction of a new wall would not have been finished by March 2011. On grounds of insufficient evidence, the prosecution had eventually refused to bring charges. However, victims had appealed to the Committee for Inquest of Prosecution in Tokyo, whose decision that a trial should be held became an obligation for the prosecution after two appeals to the committee.

#### IV. SOLUTIONS FOR THE EU – LAW, TECHNOLOGY AND DEMOCRACY

The third session, which turned to the situation within the EU, began with *Kristian Cedervall Laut*, Assistant Professor at the Faculty of Law and co-founder of the Centre for International Law, Conflict and Crisis at the University of Copenhagen, who spoke about “Lost in Translation: On what Europe failed to learn from 3-11”. As an expert in disaster law, he observed that the disaster of 2011 had occurred in the midst of the European negotiations on a new EU Civil Protection Mechanism. However, no lessons from the Japanese experience had been considered. He then identified four reasons for this: nuclear exceptionalism (which excluded learning anything from a nuclear catastro-

---

3 *Keihō*, Law No. 45/1907, as amended by Law No. 54/2007 (the Penal Code has been subsequently changed, with Art. 211 having itself been amended by the newest amendment of Law No. 86/2013; Engl. transl. available at <http://www.japaneselawtranslation.go.jp/law/detail/?ft=2&re=02&dn=1&yo=penal+code&x=0&y=0&ky=&page=1> (as of 2007).

phe for general disaster prevention), Japanese exceptionalism (which meant that 3/11 was seen as a national disaster largely dependent on the local context), a disaster too big too acknowledge (even mere acknowledgement of the existence of the possibility would undermine confidence in the system in Europe), and the complexity obstacle (a very complex situation made it difficult to take all points into account and draw conclusions).

*Stephen Tromans* QC offered insights as a practitioner on “Nuclear Law in the UK: A Practitioner’s Perspective”. He spoke about the state of the UK nuclear power industry and indicated the difficulties of obtaining a permit to plan, build, and operate a nuclear power plant. A cornerstone for a successful industry was an independent regulator, which Tromans believed to exist in the UK. Nevertheless, he identified several new challenges, especially security and safeguards, corporate control, long-term waste management, and long-term site management. He also posed the question of public involvement in the field of nuclear energy and how informed the public was.

*Tobias Heldt*, recently having received a doctoral degree for his work on nuclear law from Maastricht University, took up the latter issue and raised the question of “Hindrance or Benefit: The Role of Public Participation in the Nuclear Sector”. According to him, this was even a greater challenge within the European Union, where the choice whether to use nuclear energy had been left to each member state, with public opinion varying between states. In addition, nuclear energy requires complex technology developed and discussed by experts. He concluded that tools already existed for participation, but their actual usage, such as for the Hinkley Point C new-build project, was flawed. What would be needed was not participation that could stop everything at any given time, but an involvement that could enhance acceptance and nuclear safety while balancing out too many experts and an overbearing technocratic process.

## V. SOLUTIONS FOR THE EU – LAW AND RISK

The fourth session was started by *Ludo Veuchelen*, Distinguished International Fellow at the Rotterdam Institute of Law and Economics, who turned the attention to “Safety: Consequences of Fukushima for the EU and Euratom”. As a former employee of the Belgian Nuclear Research Centre and a former Chairman of the WG Safety and Regulation, International Nuclear Law Association, he had acted as the expert advisor for the preparation of the workshop. In his presentation, he drew a pessimistic view of EURATOM, denouncing its entanglement with industry. Additionally, he argued the organisation had too much power for a single body and it was in the interest of the people working there to uphold the system. He concluded that the major flaws were too much power for the industry itself, regulation that was too export-driven and technology-based as well as a lack of democracy (control) and a lack of decisive power and control of the EU parliament.

*Raphael Heffron*, Senior Lecturer in Energy and Natural Resources Law at Queen Mary University of London, shifted the focus, adopting a more universal perspective on

energy in his talk on “Energy Law in the UK after Fukushima Daiichi”. Nuclear energy was not the only form of energy that could give rise to accidents that may produce great damage (which was especially true for oil and gas). Therefore, the largest hurdles to overcome in order to build and expand nuclear energy did not lie in the nature of a nuclear accident but in high construction costs (which were partly due to its being a new technology), failures in project management, and a shortage of expertise. Energy in general had to meet a number of aims and objectives and nuclear energy with its low carbon footprint could meet some of them better than traditional fossil fuels (which are also the most subsidised energy source). Therefore, he pleaded for a more holistic view, taking into account all individual energy sectors, and called for a general energy law.

*Evelyne Ameje*, a practicing lawyer in the fields of energy and competition law and legal expert to the European Commission on nuclear liability, returned to the questions first touched upon by *Julius Weitzdörfer* about the exclusive liability of the operators in her talk “Fukushima, Which Lessons for Channelling and Suppliers’ Liability?”. Third party liability is (nearly world-wide) exclusively transferred to the operators of nuclear plants in a system called channelling. Economic channelling then gave the operator a right of recourse against third parties (such as the supplier, designer, test operator, sub contractor), while legal channelling generally provided no such recourse. She explained that this (legal) channelling had been historically introduced in the interests of US suppliers (and had then been adopted by Western Europe *vis-à-vis* Eastern European customers) and was still part of the relevant international conventions. While some of the reasons for channelling, such as the promotion of investment in nuclear energy, might have been valid in the 1950s, the situation had evolved – and so had technology with fourth generation reactors and their much more complex design. Thus, operators nowadays relied much more heavily on the designer to keep the reactor running safely. She therefore suggested a reform of channelling (or, at least, a switch from legal to economic channelling) that would internalise the real risks and costs and increase the incentives for greater safety. Finally, she pointed out that the US had already adopted a different system domestically and that India seemed to have done so as well.

*Lucas Bergkamp*, formerly a professor of Erasmus University of Rotterdam, currently affiliated with KU Leuven and Partner at Hunton & Williams in Brussels, objected to that finding in his presentation on “Regulation in the Risk Society after Fukushima”, declaring channelling a minor issue. Instead, he rejected recommendations after Fukushima that were based on the “risk society” rationale of *Ulrich Beck*<sup>4</sup>. Instead, in the field of nuclear liability, he proposed a broader perspective, suggesting a three-tier system with private insurance as a starting point, a mutual insurance pooling for damages above the capabilities of a single insurance provider, with the government stepping in as a third tier. Other changes should be implemented either very cautiously (such as nuclear

---

4 U. BECK, *Risikogesellschaft: Auf dem Weg in eine andere Moderne* (Frankfurt a.M. 1986); English version: *Risk Society: Towards a New Modernity* (London et al. 1992).

safety regulations), or not at all (such as general corporate liability or the concept of corporation in general) since, *inter alia*, the precautionary principle was incoherent and arbitrary and the regulation of perceived risks was irrational.

## VI. FINAL REMARKS

As a consequence of the workshop and the varied views and perspectives, *Tobias Heldt* remarked that its subtitle should be altered to “lessons to be learned” to underline the persisting necessity of finding adequate responses to nuclear disasters. The variety of issues in the aftermath of Fukushima, touching all levels of society and administration, has made it clear that approaches would have to be multi-layered. His condensed message was: “To live up to the challenges we are faced with in the nuclear sector, there is a need for integration instead of isolation, activism instead of complacency, and open dialogue instead of closed circles of experts.” Fittingly, in his concluding remarks *Julius Weitzdörfer* recalled that the disaster was often referred to as the “Fukushima episode” in the UK, which seemed to downplay the importance of the event and the on-going character of the crisis. He underlined the importance of the interdisciplinary legal workshop in citing *Naoto Kan*, Prime Minister of Japan in March 2011, who had remarked that all the institutional causes that led to the accident had already been present before the tsunami.

During the workshop, participants had an opportunity to visit the photo exhibition “Living here in Fukushima – 3.11 and after”, which had been co-organised by *Saori Kawazoe* and *Julius Weitzdörfer* for the Iwaki Meisei University Disaster Archive. The exhibition was open to the general public and was visited by a delegation of 20 students from the Fukushima area on the subsequent day. It impressively visualised many of the aspects that were dealt with in the workshop by depicting the fates of the evacuees.

Against this backdrop, the intense and diverse workshop has undoubtedly succeeded in highlighting the relevance of the triple catastrophe of Fukushima. Exploring the widest range of legal questions, providing a well-balanced forum for controversial discussions, and maintaining independence through non-industry funding, it left the participants with many topics to think about, discuss and act upon – be it in Japan, the EU or elsewhere.

*Ruth Effinowicz\**

---

\* LL.M., M.A., Research Fellow and Assistant Lecturer, Institute for International Peace and Security Law, University of Cologne.