

Current Issues in Legal Policy for Recovery from the Aftermath: One Year After the 3.11 Tōhoku Earthquake and Tsunami

Hiroshi Kabashima *

- I. Preparing Consideration
 - 1. Methodology
 - 2. Categories in Normative Dimension
- II. Supplying Basic Goods for Life
 - 1. Circumstances after the Tōhoku Earthquake on 11 March 2011
 - 2. Storing Plan for Water and Food
 - 3. Radio Broadcast
- III. Reconstruction Planning
 - 1. Group Relocation Plan
 - 2. Reconstruction of Japan as a Constructor State
- IV. 'Double Loans'
 - 1. Problems of Double Loans
 - 2. Guideline on Voluntary Liquidation
 - 3. Voluntary Liquidation and Relocation Plan
- V. Compensation for the Fukushima Radiation Leak
 - 1. Overview to the Compensation Scheme
 - 2. Causation between the Meltdown and the Damage
 - 3. Procedural Legitimacy, Social Costs
- VI. Résumé

I. PREPARING CONSIDERATION

1. Methodology

This report will take a jurisprudential approach to the practical topics concerned with the legal and public policy for recovery from the aftermath of the Tōhoku earthquake and tsunami on 11 March 2011. A jurisprudential approach encompasses, first, a way of thinking orientated to the idea of justice, and in particular distributive, corrective and procedural justice; second, a comprehensive, evaluative and philosophical interpretation

* This report belongs to the outcome of the research project 'Legal basis and public policy concerned with the earthquake disaster – political infrastructure for sustainable society' in the term from September 2011 to September 2013 supported by the Mitsui & Co., Ltd., Environment Fund. I express my special thanks to my old friend Prof. Dr. Luke Nottage for inviting me to the fruitful conference held on 1–2 March 2012 in Sydney: 'Socio-Legal Norms in Preventing and Managing Disasters in Japan: Asia-Pacific and Interdisciplinary Perspectives', and for contributing to the cooperation and partnership between the University of Sydney and Tōhoku University.

in contrast to a scientific analysis; and third, critical reflection by means of practical reason in contrast to the positivistic examination of political science.

2. *Categories in Normative Dimension*

The four topics discussed below are, in general terms, related to the government's public responsibility for crisis management and recovery.

The first topic discussed in section II is the provision of basic goods for life, which is one of the most important tasks in a crisis in order to rescue and protect the affected citizens. From a theoretical point of view, this task is related to the question, 'What is the goal and the essence of the state as a political unit and its government?' In short, solidarity matters.

The second topic, discussed in section III, is reconstruction of the affected cities and residential areas, which is the task of city planning as exercised by local government. Because this task is conditioned by limited public resources, the local government should consider the concept of fair distribution, namely, how much support the victims and the affected people should and may receive from taxpayers.

The third topic, discussed in section IV, is 'double loans'. Taking an adequate measure against this issue is necessary for reviving the economic and social life of the affected people who have lost their assets through the earthquake and/or tsunami and need to rebuild their properties, possibly in a safer area. Further, financial support for those people is one of the public tasks to be fulfilled in view of the ideal of distributive justice.

The fourth and last topic, discussed in section V, is compensation for the damage caused by the radiation leak from the *Fukushima* nuclear power station. This legal dispute should be resolved in accordance with the concept of corrective justice and based on the principle of separation of powers. Although it should surely be the matter of the judiciary, the Japanese government has tried to set out the compensation guidelines, even though it is itself partially liable for the meltdown accident.

II. SUPPLYING BASIC GOODS FOR LIFE

1. *Circumstances after the Tōhoku Earthquake on 11 March 2011*

Several weeks after the earthquake, there was a serious shortage of water, food and communication media in the capital city of north-eastern Japan, *Sendai*, where I live. It took about three days until water was distributed at water stations supplied by water trucks, and one to three weeks until water was supplied through pipes. It took more than one week until major distributors such as chain supermarkets and convenience stores were opened again and at least two weeks until they supplied food and drink stably. In addition, because the power supply was broken down in a wide area at that time, only battery radios could provide information to affected people. It took about three to seven days for

the recovery of the power supply and the mobile phone network. Many people in *Sendai* have realized through these experiences that the basic goods for life are essentially water, food and information.

2. *Storing Plan for Water and Food*

After this traumatic experience, the prefecture government of Miyagi planned to store 330,000 litres of water and 460,000 packs of meals in *Sendai*. Predicting an evacuee count of 180,000 from any future disaster, this would be sufficient to last three days. The government could not, however, realize this plan because it would cost 50 million JPY a year (ca. 500,000 USD), and it would have to throw the items away after the use-by date. Ultimately, it decided to continue the ‘emergency support agreement’ with the major distributors who will have to supply the necessary water and food as much as they are able in a disaster situation.¹

It seems, however, that neither the storage plan nor the support agreement will work for future catastrophes. First, we experienced that the central as well as the local government were not operational on site since they were also hit by the earthquake and lost their capacity to supply the items to the affected citizens because of a lack of personal and material resources. The remaining resources in the public sector, if any, would be thrown into the urgent tasks of rescuing and securing the survivors in an emergency. The government would therefore not be capable of distributing the stored water and food in the warehouse to the affected residents suffering in a catastrophic situation. Therefore it might perhaps be more efficient for private merchants to carry out the task of distribution through the market mechanism.

The next concern is our experience that the major distributors of supermarkets and convenience stores did not work in the critical period after the quake, partly because the buildings and shops were hit and damaged, partly because the traffic was cut off and partly because the basic goods for life, especially bottles of water and instant food, were bought up in other regions such as Tokyo and its surroundings. The current distribution system, equipped with the POS (point-of-sale) system register, is organized to have as few items in stock as possible, so there is insufficient stock among the major distributors to be supplied to the affected people in a crisis. In this sense, the just-in-time system, originally developed in the Toyota Production System, is fragile in an emergency so far as the distribution of basic goods is concerned.²

1 Cf. articles in the daily paper, *Kahoku Shinpo* in Sendai, 31 December 2011 and 3 February 2012; furthermore, the article *Shinsai-ji ni okeru sôgô ôen kyôtei tô no teiketsu jôkyo* [Circumstances of the mutual support agreement in disaster], in: *Shôbo hakusho, heisei 18-nendo-ban, 2006* [Fire Agency White Paper, 2006] (Tokyo 2006).

2 In addition, it is suggested that private distributors could not transport their items to the affected areas just after the quake because the government imposed the regulation that only public sector vehicles were permitted to drive on high-speed roads leading to affected areas; see N. YASHIRO, *Shin-jiyû shugi no fukken* [Restoration of neo-liberalism] (Tokyo 2011) i.

In contrast, just after the earthquake, traditional family-run stores played a significant role. Some small stores that were largely spared during the disaster and soon recovered from the damage were opened to sell the items which they kept in stock or purchased through their personal network of producers, wholesalers and retailers. In this regard, it is a better protection against disaster to ensure the diversity of the distribution channels handled by small retailers than to have a support agreement with the major distributors of supermarkets and chain convenience stores, because a number of independent retailers diversify the risk of distribution dysfunction. It is therefore favourable – not only for keeping the communal economy active but also for protecting the community during a disaster – to assist small retailers suffering from ‘shutter street’, i.e. closed shops because of capitalistic dominance by the major distributors.

3. *Radio Broadcast*

I cannot enter into details about the communication media in an emergency situation, but we must learn from our experience that high-technology media such as the Internet and mobile phones did not work at all in the disaster. I think the key is the same as in the case of distribution of goods: diversity of information channels. For example, there are five major radio channels broadcast in *Sendai*: two AMs and one FM sent by the centralized public station of NHK, and one FM and one AM by each local private station. Just after the earthquake, the private channels were more able to provide the local and communal information than the centralized NHK. Therefore it is worthy to consider whether the regulation of the Broadcast Act³ should be liberalized so as to strengthen the so-called Community FM. In *Sendai*, there are three Community FM stations with an output of 20 watts sending to ca. 200,000 residents, besides the five major stations with an output of 5 to 20 kilowatts broadcasting to ca. 2 million. It would be better if the Community FM stations were permitted to increase their output capacity so as to provide community-oriented information in a wider area.

III. RECONSTRUCTION PLANNING

1. *Group Relocation Plan*

The earthquake and tsunami hit such large swathes of Japan’s north-eastern coast, the Tōhoku region, that about 30,000 houses were destroyed and swept away. In order to reconstruct houses for the affected people now living in temporary dwellings and to recover the infrastructure of the affected area, city planning for recovery has an essential importance. There are two concepts of city planning: either to rebuild houses on the

³ *Hōsō-hō*, Law No. 132/1950, as amended by Law No. 65/2010; engl. transl. available at: http://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/Resources/laws/pdf/090204_5.pdf (as of 2010).

affected sites or to relocate residents from coastal areas to hillside settlements. The central government provides group relocation of the affected residents with subsidies based on the Act on Special Financial Support for Promoting Group Relocation for Disaster Mitigation⁴ enacted in 2011. In accordance with this relocation policy, most local governments did not make their own city planning until one year after the earthquake. In this new city planning, however, it is not the choice of the affected households where to live in the future, whether to rebuild their house in the affected area or to relocate into a hillside settlement. Instead, it depends on which zone their residence was located in, either in the danger zone or in the reconstruction zone according to the new city planning. In order to promote group relocation, the local government of the city of *Sendai*, for example, provides financial assistance to the affected households as shown in the following table:⁵

<i>Recovery Plan for Tsunami Zone of Sendai</i>
<ul style="list-style-type: none"> – 1214 ha of the danger zone in coastal areas of eastern <i>Sendai</i> – Prohibition against rebuilding ca. 2000 houses – Relocation settlement provided by the local government – Conditions for the financial assistance of relocation: Resident in the current danger zone at the time of the disaster Destroyed house owned by the affected resident himself or his relative Property handed over to the local government in exchange for 75-80% the value of its market price before the earthquake
<i>Financial assistance in case of new housing in the relocation settlement</i>
<ul style="list-style-type: none"> i) Purchasing the land in the relocation settlement: providing max. 7.1 million JPY (ca. 71,000 USD) for the interest on the loan ii) Leasing the land in the relocation settlement: long-term exemption from rent iii) Constructing a new house in the relocation settlement: providing max. 11.6 million JPY of housing loan (ca. 116,000 USD) interest-free for 5 years
<i>Public dwelling for recovery</i>
<ul style="list-style-type: none"> – 2,800 units of public apartments and public houses in <i>Sendai</i> constructed until 2014 on schedule – House rent dependent on the income of the household
<i>Additional assistance to the affected people not meeting the conditions above</i>
<ul style="list-style-type: none"> – Targets: residents in tsunami flooded area but not in the danger zone according to the city planning – Financial assistance of removal into and rent in the safer area in <i>Sendai</i>

⁴ *Bôsai no tame no shûdan iten sokushin jigyô ni kakawaru kuni no zaisei-jô no tokubetsu sochi-tô ni kansuru hôritsu*, Law No. 132/1972.

⁵ Cf. the series of articles: [Compass to the revival: examining the reconstruction plan], 10 December 2011 – 30 December 2011, and other related articles on 18-19 January, 2 March, 2 April, 4 April, 7 April, and 11 May 2012 in the morning paper, *Kahoku Shinpo* Sendai.

Even though the promotion scheme is comprehensive, as shown in the table above, it is still not clear why the central government chose the relocation policy, especially given its expense. In order to make a rational choice, we should consider the merits and the demerits of the alternatives. The relocation policy has the merit of high safety against tsunami and the demerit of high costs for developing a new settlement on the hillside, whereas the rebuilding policy has the merit of low costs of reusing the remaining facilities and the demerit of less safety in the tsunami-flooded area. In the decision making of the central government, however, there was no evidence that it made a cost-benefit analysis and probability calculation based on an enormous once-every-century earthquake and tsunami; instead, it appears to have come from the safety-first principle that chose the relocation policy without considering how much it would cost.

2. *Reconstruction of Japan as a Constructor State*

I am unsure why the Japanese government did not make a rational decision. I also doubt whether it considers the high costs of relocation a demerit, as the large scale of public works could revive major constructors as well as minor ones suffering under the decreasing national budget, a consequence that would be of great benefit for upcoming elections. In this regard, the longer the reconstruction work continues, the more the constructors will be able to make profits and work a political asset.⁶ This would also be a reason why the duration of the reconstruction plan is mostly determined for as long as 10 years, and why it will be financed by reconstruction national bonds, which will be repaid in 25 years by future generations.⁷

In making the long-term recovery plan, the local government has not paid sufficient attention to the reality that many affected citizens are elderly people, and the community was suffering from depopulation prior to the earthquake. It is unclear what a new life in the relocated settlement will mean for elderly residents living now in temporary dwell-

6 Cf. Y. HARADA, *Kyodai infura jigyo no fu-kashigi: Shin-kansen kensetsu to fukkô no supîdo ga osoi riyû* [Mystery of large-scale infrastructure works – a reason why the construction of the high-speed railway and the recovery from the earthquake aftermath are done in a slow tempo], in: *Tôyo Keizai*, 22. October 2011, 128-129.

7 Ca. 7 trillion JPY (ca. 70 billion USD) of the reconstruction national bond, which amounts to about 1.5 % of the Japanese GDP, is justified with the argument that the temporary tax increase for recovery would bring about ‘welfare loss’ according to the ‘leveling taxation doctrine’, for example, by A. NOGUCHI, *Fukkô zôzei no mondai-ten* [Problems of the tax increase for recovery], in: *Economisuto* 11. October 2011, 44-45. He insists that the costs of the recovery should be borne by the future generation who will enjoy the merit of the recovery. In my view, however, his opinion does not correspond to the principle of inter-generation equity, because the recovery as well as relocation will not bring any profit to the future generation but only to the affected people on site. I think, therefore, that the costs of the recovery of the affected area and the relocation to the new hillside settlement should be paid by the present generation who might feel sympathy with the victims and the affected people.

ings if they do not move into a new house on the hillside until 2014 or later. In the two or three years until 2014, the younger generation will leave the affected area and seek new jobs in a big city if the local economy on site does not grow again. The worst scenario would be that at the end of the recovery plan in ten years, the builders, together with the younger workers, will leave the tsunami area and only elderly people will remain, living in the new houses in the relocation settlement. In view of these circumstances, it is hard to understand why the government wants to invest a huge amount of taxpayer money to relocate aging communities to the hillside without considering the possibility of rebuilding safer habitation, a more active economy and a more balanced demographic population in the coastal area.

IV. 'DOUBLE LOANS'

1. *Problems of 'Double Loans'*

Tackling 'double loans' is important for both economic revival and city reconstruction.⁸ In terms of the business loan, the 'Support and Rescue Organization for the Enterprise Affected by the 2011 East Japan Earthquake'⁹ has been established to purchase the claim from the creditor, so that the debtor company will be able to repay the outstanding loan to the support organization at a lower rate than before. As a result, the debtor company would be able to take out a second loan for continuing its business. My report cannot currently enter further into details of this support scheme because of limited space, and instead will focus on the issue of housing double loans.

In terms of housing loans, the problem can be identified as follows. If the affected household took out a housing loan before the earthquake and now must borrow money for either repairing or rebuilding its house, it will incur two debts. In fact, it is difficult for the household to take out the second loan without financial assistance, because it will not be capable of meeting the obligations of both loans.

This is one of the hurdles to the relocation plan of the local government. According to the current recovery plan, the government provides a subsidy under the condition that every member household of the community agrees with the relocation from the danger zone to the safer settlement. It is, however, problematic to attain agreement from the household that took out a housing loan before the earthquake and had its assets destroyed and/or swept away. Even though the local government provides such households with up to 11.6 million JPY (ca. 116,000 USD) in the form of a housing loan for reloca-

8 Cf. articles in the daily paper, *Kahoku Shinpo* in Sendai, 20 August and 23 August 2011, and 24 January and 10 February 2012.

9 About the 'Support and Rescue Organization', see *Higashi-nihon dai-shinsai jigyô-sha shi'en kikô* at: <http://www.shien-kiko.co.jp/> (as of 5 September 2012); see also articles in the daily paper, *Kahoku Shinpo* in Sendai, 21 October and 6 December 2011, and 9 February 2012.

tion as seen above (table *supra* at III.1.), the household cannot repay the outstanding loan even if it sells off its remaining land in the affected area. Even if it took out the housing loan provided by the government interest-free for five years, the obligations of both loans would eventually have to be met. In this situation, it would be more realistic for those households to rebuild a simple house on their own land in the affected area than to relocate with neighbours and construct a new house with governmental assistance, because with the income it has access to it is only capable of meeting the obligations of the single outstanding loan. Therefore, it has no incentive to agree with the group relocation of the community without any resolution of its insolvency. If the government intends to smoothly implement the relocation plan, it is therefore necessary for it to provide an effective assistance to any such households having trouble with double loans.

2. *Guideline on Voluntary Liquidation*

Regarding these difficulties, the government has drawn up a ‘Guideline on Voluntary Liquidation of Personal Debt’,¹⁰ according to which the incorporated ‘Steering Committee for the Guideline on Voluntary Liquidation of Personal Debt’ in Tokyo is to act as the mediator between the financial institution and the affected debtor. Under the Steering Committee procedure, the debtor should first request a voluntary liquidation from the Committee, which should then help the debtor make a new repayment plan; if the financial institution agrees to it, the debtor should then repay his/her debt accordingly. The Guideline as such aims to release the debtor from the threat of bankruptcy. The merit of voluntary liquidation is that the debtor is able to keep a maximum of 5 million JPY (50,000 USD) of cash on hand without his/her property attached, in contrast to the maximal 990,000 JPY (9,900 USD) of cash in cases of personal bankruptcy. The new repayment plan can also include a certain moratorium period. Moreover, the Guideline allows the prefecture government to provide up to 500,000 JPY (5,000 USD) in subsidies for covering the interest on an outstanding loan of more than 5 million JPY (50,000 USD). It is, however, undetermined in the Guideline whether the debtor can be exempt from the loan, and if so, to what extent.

3. *Voluntary Liquidation and Relocation Plan*

Despite this ambitious goal and the elaborate Guideline scheme on voluntary liquidation, it does not seem to work in promoting group relocation because its purpose is releasing the debtor from bankruptcy rather than facilitating the burden of double loans. This is especially so as the Guideline does not treat the affected person as a salary worker who

10 See the Japanese website *Kojin saimu-sha no shiteki seiri ni kansuru gaidorainu*, at: <http://www.kgl.or.jp/> (as of 5 September 2012); for details on the guidelines cf. S. STEELE / C. JIN, *Insolvency Law Responses to a National Crisis: Great East Japan Earthquake and Guidelines for Individual Debtor Out-of-Court Workouts*, *infra* in this issue (*the editors*).

is still capable of repaying the outstanding loan even after having property swept away by the tsunami. In these cases, the debtor could continue to repay the outstanding loan, meaning s/he would have difficulty in taking out the governmental housing loan for relocation. Furthermore, it is very problematic for the debtor to be prohibited from building a new house on his/her own land in the affected area now designated as a hazard zone according to Art. 39 of the Building Standard Law¹¹. Thereby, the only alternatives for him/her are either to move into a private rental house or into a public dwelling for recovery provided by the local government (see the table *supra* at III.1). As long as the new city planning prohibits affected households to build new houses on their own property in the hazard zone, such households will be substantially forced to surrender the property to the local government in order to repay their outstanding loans and move somewhere else. I doubt whether this relocation policy combined with the double loan measure is legitimate and justifiable in view of the human right to free movement and transfer provided in Art. 22 of the Japanese Constitution¹². In fact, I cannot see any functional cooperation between the relocation plan and the guideline on voluntary liquidation at the level of public policy.

V. COMPENSATION FOR THE FUKUSHIMA RADIATION LEAK

1. Overview to the Compensation Scheme

While the topics in sections II through IV were concerned with the public policy of crisis management caused by the natural disaster, the meltdown accident and radiation leak of the *Fukushima* nuclear power station raises the legal issue of compensation for the damage caused by the negligence of the polluter Tokyo Electric Power Company (TEPCO). In view of the difference between natural disaster and human error, I would like to focus mainly on tort liability.

After the *Fukushima* nuclear accident, the Japanese government, through the Education and Science Ministry, set up the ‘Committee for the Dispute Settlement of Nuclear Damages’, which drew up the Provisional Guideline for Judging the Causation between Radiation Leaks and Damages on 5 August 2011. The Committee released its first appendix on 6 December 2011 and its second appendix on 16 March 2012.¹³ Based on

11 *Kenchiku kijun-hô*, Law No. 201/1950, as amended by Law No. 67/2012, available at: <http://law.e-gov.go.jp/htmldata/S25/S25HO201.html> (as of 5 September 2012).

12 Article 22 of the Japanese Constitution states: ‘Every person shall have freedom to choose and change his residence and to choose his occupation to the extent that it does not interfere with the public welfare’ (translation taken from: <http://www.japaneselawtranslation.go.jp/law/detail/?ft=1&re=01&dn=1&x=0&y=0&co=01&ky=%E6%86%B2%E6%B3%95&page=11> (as of 9 September 2012); *Nihon-koku kenpô* of 3 May 1947 available at: <http://law.e-gov.go.jp/htmldata/S21/S21KE000.html> (as of 5 September 2012).

13 Original text of the Guideline and appendixes available at: http://www.mext.go.jp/a_menu/anzenkakuho/baisho/1304756.htm (as of 7 September 2012); for detailed information on the

the Guideline and complemented with the appendixes, TEPCO now offers compensation according to the standards in the following table:¹⁴

<i>Targeted Persons</i>	<i>Criteria</i>	<i>Damages</i>
<i>Mandatory evacuees from</i>		
uninhabitable zone	20 km far from epicentre: 50 msv/ year or more*	6 million JPY (ca. 60,000 USD) for 5 years per capita
limited inhabitable zone	20-50 msv/ year	2.4 million JPY (ca. 24,000 USD) for 2 years per capita
inhabitable zone	20 msv/ year or less	100,000 JPY (ca. 1,000 USD) for 1 month per capita
<i>Voluntary evacuees of</i>		
pregnant women, minors under 18	from the 23 communities within <i>Fukushima</i> Pref.	600,000 JPY (ca. 6,000 USD) for 9 months from Mar. to Sep. 2011 per capita
others	from the 23 communities within <i>Fukushima</i> Pref.	80,000 JPY (ca. 800 USD) for 9 months from Mar. to Sep. 2011 per capita
<i>Business loss in</i>		
agriculture, stock breeding, fishery	tainted products, sales decrease caused by misinformation	within reasonable causation between damage and radiation leak
hotel running	hotels in 5 prefectures around the epicentre	lost profit compared with the years before

* msv = millisievert

committee and the enactment of the guidelines, see already J. WEITZDÖRFER, Die Haftung für Nuklearschäden nach japanischem Atomrecht – Rechtsprobleme der Reaktorkatastrophe von Fukushima I [Liability for Nuclear Damage Pursuant to Japanese Atomic Law – Legal Problems arising from the Fukushima I Nuclear Accident], in: ZJapanR/JJapanL 31 (2011) 64 *et seq.*, 83-87, 106-108 (*the editors*).

14 See the original texts cited *supra*, note 15, and articles in the daily paper, *Kahoku Shinpo* in Sendai on 25-26 August, 27 October 2011, 24 February, 28 February, 8 March, 17-18 March, 26 March, 4 April, 6 April, 25 April 2012; and also H. KABASHIMA, Settlement in Pollution Cases: Contribution to the Dispute Resolution of the Fukushima Nuclear Power Plant's Melt Down", in: GEMC Journal 6 (2012) 14-25, published at: http://www.law.tohoku.ac.jp/gcoe/wp-content/uploads/2012/04/gemc_06_cate2_3.pdf (as of 9 September 2012).

2. *Causation between the Meltdown and the Damage*

The essential issue in the dispute is concerned with judging the causation between the accident and the damage.¹⁵

First, it is disputed how much should be paid for compensation to evacuees.¹⁶ The Guideline initially prescribed 50,000 JPY (500 USD) a month per capita for compensation, which was criticized as too little, and subsequently revised to 100,000 JPY (1,000 USD). At any rate, however, this revision is insufficient to satisfy the group of mandatory evacuees from the city of *Minami Sôma*, for example, who have filed a damages suit claiming 350,000 JPY (ca. 3,500 USD) a month per capita. Moreover, the Guideline provides such a large difference between mandatory and voluntary evacuees that the latter could receive only 80,000 JPY (800 USD) for the total damage caused by the radiation leak, while the former received 100,000 JPY (1,000 USD) a month per capita so long as they lived in temporary dwellings. This different treatment in the Guideline is regarded as unfair to the group of voluntary evacuees from the city of *Iwaki*, for example, who have filed a damages suit claiming 30,000 – 80,000 JPY (ca. 300 – 800 USD) a month per capita.

Second, it is problematic that the amount of compensation is connected to, and dependent upon, the zone division. At first, the government divided the danger area into three zones: a warning zone, a systematic evacuation zone and a precautionary evacuation zone. Since April 2012, it has declared them to be uninhabitable zones, limited inhabitable zones and evacuation-free zones respectively. The more dangerous the zone in which the evacuees lived, the more compensation they could receive. The problem is that there is no objective boundary for the amount of the damage, nor is it measurable with criteria such as 20 millisievert per year up to 20 km away from the epicentre as the government assumes, because the radiation diminishes gradually from the epicentre to the surroundings. In addition, the Guideline does not take into account the radiation from small doses of strontium with a half-life of 30 years or plutonium with a half-life of 24,000 years that will be concentrated in the bio- and ecosystem, contaminating the environment for a long time. No one can predict and evaluate how severe the damage will be from these small doses over the long term. Therefore, it is impossible to identify how much the damage caused by the radiation will amount to in total. Each individual case should be resolved by the courts, and not even by the unified Guideline of the government.

Thirdly, business losses matter. In the Guideline, there are only a few issues prescribed, such as business loss in agriculture, stock breeding, fisheries, hotel running, etc.

¹⁵ For details on these issues, see WEITZDÖRFER, *supra* note 15, 85-87 and particularly M. YOKOUCHI, *Abgrenzungsprobleme des Haftungsumfanges bei Atomschäden* [Problems of defining the scope of nuclear damages], in: *ZJapanR/JJapanL* 32 (2011) 123-152 (*the editors*).

¹⁶ Cf. articles in the daily paper, *Kahoku Shinpo* in Sendai, in the evening of 28 February, on 23 April, 10 May, 12-13 May 2012.

(see the table *supra* at V.1.). In terms of the tourist industry, for example, the Guideline provides merely that the hoteliers in *Fukushima, Ibaragi, Tochigi, Gunma* and the *Yonezawa* area in *Yamagata* can receive compensation for their business losses, but there is no prescription for the other affected hoteliers in the *Tôhoku* region, namely in *Miyagi*, and most parts of *Yamagata, Akita, Iwate* and *Aomori*. It is also undetermined whether the business losses in the transport industry will be compensated.¹⁷

Lastly, the prefecture governments have already paid the huge cost of decontaminating the radiation in schools, playgrounds, residential areas, etc. Some of these prefecture governments are now claiming compensation from TEPCO, but it is still unclear whether such governmental expenditure will be compensated.

3. Procedural Legitimacy, Social Costs

The question of causation – to what extent the polluter TEPCO is liable for the damage caused by the radiation leak – should be decided by the judiciary based on the principles of the ‘rule of law’ and the ‘separation of powers’.¹⁸ To the contrary, the government is trying to resolve the dispute by applying the Guideline which it drew up by itself. Insofar as it too is liable for the accident, it is dubious whether the Guideline is fair to all parties. In addition, it is also problematic for the Guideline to play a role as a special act of tort liability for the on-going cases, even though it is being applied retroactively. It is therefore not legitimate with regards to procedural justice.¹⁹

For the purposes of dispute resolution, in September 2011 the government set up the ‘Dispute Settlement Center of the Nuclear Damages’²⁰ in the form of an Alternative Dispute Resolution (ADR) institution. For the same reasons as the Guideline, it is doubtful

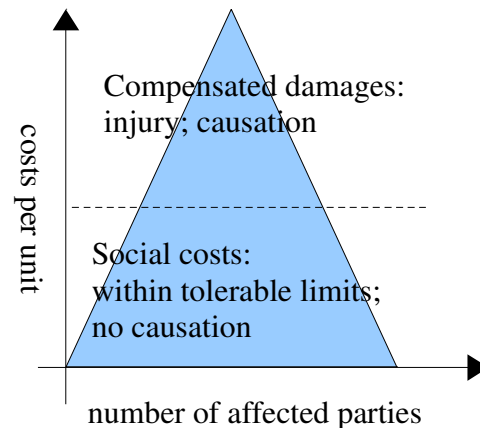
¹⁷ This question is treated e.g. in J. WEITZDÖRFER, Liability for nuclear Damages under Japanese Law – An Overview of Legal Problems Arising from the Fukushima Dai’ichi Nuclear Accident, in: S. Butt/H. Nasu/L. Nottage (eds.), *Asia-Pacific Disaster Management: Socio-Legal Perspectives*, (forthcoming, Berlin 2013) (*the editors*).

¹⁸ See Art. 76 of the Japanese Constitution: ‘The whole judicial power is vested in a Supreme Court and in such inferior courts as are established by law’; and Art. 3 of the Japanese Court Act: ‘Courts shall, except as specifically provided for in the Constitution of Japan, decide all legal disputes, and have such other powers as are specifically provided for by law’; translation from <http://www.japaneselawtranslation.go.jp/?re=01> (as of 8 September 2012). The constitutional law issue of separation of powers is expounded further at WEITZDÖRFER, *supra* note 15, 105-106; and particularly at *idem, supra* note (19); the issues of rule of law and retroactivity treated later in this paragraph *ibid*.

¹⁹ Moreover, it is reported in the newspaper that two members of the Nuclear Committee drawing up the Guideline received a ‘research grant’ from the polluter TEPCO, which must bring them to the conflict of interest; see “*Genshi-ryoku baishô-shin no 2-i’in, denryoku-kei kenkyû kikan kara hôshû* [Two members of the Nuclear Committee received award from power companies], in: *Yomiuri Shinbun*, available at: <http://www.yomiuri.co.jp/national/news/20110924-OYT1T00172.htm> (as of 8 September 2012).

²⁰ See the website of the Ministry of Education (MEXT), at: http://www.mext.go.jp/a_menu/anzenkakuho/baisho/1310412.htm (as of 8 September 2012).

whether the Dispute Settlement Center would be fair to all parties. In fact, the Dispute Settlement Center does not work as expected as an ADR institution, which should provide for the victims a faster, less expensive and more efficient settlement than under the judicial procedure. In the six months from September 2011 to March 2012, the Mediation Panel of the Dispute Settlement Center settled only 18 disputes of the 1243 applied. TEPCO has accordingly paid only 445.5 billion JPY (ca. 4.455 billion USD) in damages, only about one quarter of the 1.7 trillion JPY (ca. 170 billion USD) which the government has credited to TEPCO in damages.²¹



Finally, the enormous accident of the *Fukushima* meltdown makes us aware that our legal system, based on constitutionalism, cannot provide a fair solution to the question of who should pay the social costs and social damages caused by the pollution. Karl William Kapp gave the first definition of social costs in 1950 as 'all direct and indirect losses suffered by third persons or the general public as a result of private economic activities'.²² In the *Fukushima* case, the problem of social costs can be illustrated as follows. If an affected person cannot receive the compensation for the damage, he should bear the costs by himself. Not every business loss is covered by compensation if the Mediation Panel or the court of law rules that there is no evidence of causality of the accident with the decreased sales of food products or tourism, for example, which is often regarded as caused by misinformation and unconfirmed rumours that radiation in food products exceed the health standard of the ministry or that the hotel is located near the epicentre. In any case, causation is dependent upon the judgment given by the Panel or by the court. As such, some damages will inevitably remain that are uncompensated for being outside causation (see the figure above). Social costs can also arise from cases where the relatives of the evacuee must bear the mental distress of taking care of them, that the children evacuated from their homes to temporary housing must endure substandard levels of education and possibly suffer from decreases in their lifelong income potential. The most serious issue in the current situation is the rapid decrease in population of *Fukushima* Prefecture. After the meltdown accident, about 157,000 residents evacuated from the affected area, and about 40,000 people in total have left *Fukushima* for other prefectures.²³ Such decreases in population lead to down-sizing of the economy and labour market, possibly leading to a negative spiral.

21 Cf. articles in the daily paper, *Kahoku Shinpo* in Sendai, 12 March 2012.

22 K.W. KAPP, *The Social Costs of Private Enterprise* (reprint, New York 1975) 13.

23 Cf. articles in the daily paper, *Kahoku Shinpo* in Sendai, on 27 December, 30 December 2011.

According to predominant opinion, the tort liability of the polluter should extend this kind of human loss to society as a whole, meaning the general public has to pay the social costs and social damages. Problematically, the current legal system does not effectively control or manage human disasters such as the nuclear meltdown, which incurs enormous social costs and social damages. This is what I would call the ‘failure of law’.

VI. RÉSUMÉ

My report has given critical consideration to the legal and public policy concerned with recovery from the aftermath. Nevertheless, I cannot criticize the people applying themselves in recovery tasks in the public or the private sector. I hope that the theoretical discussion in my present report can contribute to better decision making in practice.

ABSTRACT

My report deals with four practical topics concerned with legal and public policy in view of the current situation one year after the 3/11 Tōhoku earthquake and tsunami. First, it examines whether the government sufficiently performed its crisis management tasks, mainly supplying the basic goods of water, food and information. In addition, it will be considered which functions and operations of these tasks and functions should be improved in preparation for future disasters, especially in relation to strengthening the cooperation between the public and private sectors.

Second, on the way to recovery from the aftermath of the tsunami, new city planning is necessary for ensuring the safety of the affected areas. Regarding this concern, legal issues are clarified in terms of building restrictions, purchase of the affected residential land, hillside housing developments and so on, together with the issue of financial resources for these public policies.

Third, the relation of private law to crisis management is considered, mainly on the matter of so-called double loans which have arisen from the situation. These loans are descriptive of some private households, as well as private enterprises, who, while unable to meet the obligations of housing or business loans because they have lost their assets through the earthquake and/or the tsunami, are needing to rebuild their house or company, which requires new financial resources.

Fourth, this paper also deals with whether the on-going legal scheme and practice works effectively in compensating damages caused by the radiation from the Fukushima nuclear power station, in regard to the amount of the compensation, the judgment of causation, the range of concerned parties and so on.

ZUSAMMENFASSUNG

Dieser Beitrag behandelt vier praktische Probleme der Rechtspolitik und des staatlichen Handelns im Hinblick auf die Lage ein Jahr nach dem Erdbeben und dem Tsunami in der Tōhoku-Region vom 11. März 2011. Zunächst wird untersucht, inwieweit die Regierung Aufgaben des Krisenmanagements bei der Grundversorgung vor allem mit Wasser, Nahrungsmitteln und Informationen erfüllen konnte. Dabei wird berücksichtigt, welche Aufgabenbereiche und Abläufe in Vorbereitung auf zukünftige Katastrophen optimiert werden sollten, insbesondere hinsichtlich der Verbesserung der Zusammenarbeit zwischen privatem und öffentlichem Sektor.

Zweitens sind zur Bewältigung der Folgen des Tsunamis neue stadtplanerische Schritte erforderlich, um die Katastrophensicherheit der betroffenen Gebiete sicherzustellen. Diesbezüglich werden Probleme bei rechtlichen Maßnahmen wie Baubeschränkungen, dem Aufkauf betroffener Grundstücke, der baulichen Erschließung von Hanglagen usw. sowie der Finanzierung derartiger öffentlicher Vorhaben herausgearbeitet.

Drittens werden Wechselwirkungen des Privatrechts und des Katastrophenrechts beleuchtet, insbesondere hinsichtlich des Problems der sog. „Doppelkredite“: Hierbei geht es um die Situation, in der sich Privathaushalte und Unternehmen befinden, die nicht mehr in der Lage sind, laufende Kredite für von Erdbeben oder Tsunami zerstörte Immobilien etc. zu bedienen, gleichzeitig aber erneut Kredite aufnehmen müssen, um Wohnhäuser und Betriebe wiederzuerrichten.

Schließlich befasst sich der Beitrag mit der Frage, inwieweit angewandtes Recht und Verfahren einen effektiven Ersatz von Schäden gewährleisten können, welche durch den Austritt radioaktiver Strahlung aus dem Atomkraftwerk Fukushima I eingetreten sind, namentlich hinsichtlich der Höhe der Entschädigung, der Beurteilung der Kausalität und des Kreises der Anspruchsberechtigten.

(Übers. durch d. Red.)