
SETTLEMENT IN POLLUTION CASES: Contribution to the Dispute Resolution of the Fukushima Nuclear Power Plant's Melt Down¹

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I . Preface

Pollution disputes are to define as cases in which the life and health of the human being is injured seriously by man-made harmful chemicals diffused in the human environment. There are several types of pollution cases in Japan in a wide sense, firstly the industrial pollution like as the big four pollution cases in 1950s, secondly the drugs and foods poisoning like as the SMON disease and the Kanemi Oil disease, thirdly the noise and air pollution from undesirable institutions like as airports, military camps, nuclear power plants and so on.³

One of the ways to resolve these different pollution disputes is the civil litigation, in which the victims as plaintiffs claim the payment for damages based on the tort law liability of the polluter. In Japan, however, only a few cases have been resolved by the judgment of the court, but mostly by the settlement reached either within or outside of the litigation process. In some cases, indeed, not only the dispute parties achieved the settlement, namely the settlement between the victims on the one side and the private enterprise

and the central as well as local government on the other side, but also the parliament as legislator has enacted the statute for the remedy measure, which articulates the provisions of the settlement and has binding force to the dispute parties as well as to the third parties of unattended latent victims.

My report on hand would like to clarify the merit and demerit of settlement, litigation and legislation as legal ways to resolve pollution disputes, so as also to analyze the legal framework of compensation for the Fukushima radiation leak arranged by the legislator. For this purpose, I would like to bring out my own historical overview about the legal way of dispute resolution in Japan in terms of the pollution cases.

II. Preparing consideration - Three types of law and separation of powers

At the beginning, I would like to make a general remark about the theoretical framework of my report on hand in view of a jurisprudential approach to the environmental law.

In the field of jurisprudence in Japan, Shigeaki TANAKA developed the typology of law, which divides different laws into three types: firstly the universal type of law, for example, contract, property, tort, criminal law or also constitution and human rights etc., secondly the control oriented type of law, for example, city planning law, education law, competition law, consumer law etc., and thirdly the autonomous type of law, for example, unwritten custom law of community, prescriptive contract stipulations etc.⁴

Seen from this typology, the field of environmental law extends widely from administration law to tort law, namely from the control oriented type to the universal type of law. As a part of administration law, environmental law works in preservation of natural environment and precaution against pollution, in concrete also precaution against global warming etc., and it belongs so far to the control oriented type of law. However, once the environmental pollution causes damages to the human life and health or also to the private property, tort law should be applied in order to resolve the environmental dispute with a fair result of compensation. In these issues, environmental law functions as a part of tort law, and belongs so far to the universal type of law.

In the area of the environmental administration law, the parliament and the government, that is the political part of the state organization, should operate the control function over production and consumption activities of the private sector. This is usually put into practice in the way that the

legislator provides the statute, according to which the government regulates private activities in favor of environmental preservation. Generally speaking, this idea is named as constitutionalism, or rather *Rechtsstaat* in German legal theory.⁵ While in dispute cases, indeed, the private party can bring a public law action seeking for the legality of the administrative measure and also the constitutionality of the legislation, the main purpose of the environmental administration law is to regulate private activities in favor of environment in advance of pollution, and not to recover pollution damages afterward. For this reason the political body should play the prior role in the environmental administration law.

In the area of environmental tort law, on the contrary, the court of law, that is the judicial power of the state organization, should play the central role. Thereby the legal action initiated by the private party is the key factor in operating the tort law system. This is because the court of law will not and can not consider any remedy for pollution victims until they files the damage suit against the polluter. In the abstract, the main function of the judiciary is to resolve the dispute case in the way that the court of law applies the general rule of the positive law to the individual concrete case. This idea would be correspondent to the principle of rule of law in Anglo-American common law culture, which means something different in nuances from constitutionalism in continental civil law culture.⁶

In Japan, however, not a few of pollution cases were not resolved through the judicial procedure, but often in form of the private settlement outside of the court, or sometimes in form of the special remedy act provided by the legislator. Here arises

the question from the jurisprudential point of view, whether Japanese pollution cases have been and will be resolved in accordance with the idea of

rule of law, namely the fair distribution of right and duty among the concerned parties.

III. Historical overview of Japanese pollution cases

1. Three stages of the dispute resolution of pollution cases in Japan

It seems to me that the dispute resolution of environmental cases in Japan can be divided into three stages in view of its historical development since Meiji era. The first stage is from 1890s to 1960s when the environmental cases were mainly resolved by means of private settlement, for example, the Ashio Mining pollution case, the Edogawa Paper Manufacturing pollution case etc. The second stage is from late 1960s up to present, that is the period since the big four pollution suits, when the environmental cases have mostly been resolved through the judicial procedure, for example beside the four big pollution cases, the Osaka Alkali incident, the Morinaga Dry Milk incident etc. The third stage has newly emerged for the last decade when the parliament has been involved in the dispute resolution of the individual

pollution cases, based on the legal scheme of the Compensation Act for Pollution Victims” of 1973, for example, the Compensation Act for Asbestos Victims of 2006, the Remedy Act for Victims of HCV tainted Blood Products of 2008.

2. The first stage of the settlement

(1) Three major cases

The first major pollution case in the Japanese modern industrialization history was the case of Ashio Mining Pollution.⁷ Furukawa Mining Company purchased the Ashio Mine in Tochigi Prefecture in 1877, which caused the air, water and soil pollution with toxic oxide and copper compounds. In 1890 the farmers and residents on site suffered severely under health and property damages because of poisoned crops and poor harvest, and some of them were killed or born dead. Without filing a damage suit, the victims

Ashio Mining pollution	Air, soil and water pollution by oxide and copper compounds 1877 Furukawa Mining Co. 1890 Poor harvest of rice; death, stillbirth 1896 Permanent private settlement 30,119 JPY to 5127 victims: 6 JPY per capita 1907 Yanaka village destroyed
Edogawa Paper Manufacturing pollution	River water pollution by oxide compounds 1922 Honshu Paper Co. 1958 Decrease of fish catch Struggle between fishers and guards during bargaining Private settlement: 40mio JPY for 8 fisherman’s guilds; Cf. 306mio claimed
Yokkaichi Kombinat sea water pollution	Yokkaichi Kombinat: sea water pollution by oxide compounds 1938 Ishihara Industry plant 1958 Cosmo Oil Co. 1959 Mitsubishi Chemical Co. 1962 Private settlement: 100mio JPY for 5 fisherman’s guilds; Cf. 3bio JPY claimed

reached the permanent private settlement with the polluter company in 1896, which provided only 6 JPY pro person with the waiver close for the victims to give up claiming any compensation more permanently.

The second example would be the case of Edogawa river water pollution.⁸ Honshu Paper Company, founded in 1922 and Oji Paper at present, polluted the Edogawa River on the border between Tokyo and Chiba Prefecture severely in 1950s with oxide compounds included in its waste water. Fishers suffered under the decrease of fish catch, and struggled against pollution with claiming compensation for damages. After the violent battle between the fishers and the guards of the company, the both parties reached the private settlement in 1958, which provided the compensation of 40 million JPY for the 8 fisherman's guilds, a small amount compared with the claim of 306 million.

The third example would be the sea water pollution by the Yokkaichi Kombinat, above all by the chemical plants of Ishihara Industry founded in 1938, Cosmo Oil founded in 1958 and Mitsubishi Chemical founded in 1959.⁹ Here also fishers on site, where is famous the Ise Lobster, suffered under the decrease of fish catch, and struggled against pollution with claiming compensation for damages. In 1962 the 5 fisherman's guilds and the companies in the kombinat reached the private settlement, which provided 100 million JPY, that is also a small amount compared with the claim of 3 billion JPY.

(2) Features of the settlement

I would like to identify some features of the settlement in view of Japanese way of dispute resolution.

Firstly, it is worthy to remark that the dispute was resolved by means of settlement, even though the victims committed nothing to be imputed to,

while the settlement contract in general is based on the reciprocal concession after the Article 695 of the Japanese civil code.¹⁰ The settlement contract was named sometimes as monetary gift contract (*mimai-kin keiyaku*) or also as permanent private settlement contract (*eikyu jidan keiyaku*).

Secondly, the bargaining for settlement was often mediated by the meaningful politician on site, sometimes by the member of the national parliament, or also by the governor of the prefecture government. In these circumstances, the group of victims took lobbying actions in the political process, which did not grow to the civic movement or mass movement in form of grass roots democracy.

Here we can identify the merit and demerit of the settlement. It was certainly a merit for the pollution victims not to pay any costs for bargaining in cash by themselves, because they could expect that the politician, who mediated the negotiation, would surely bring them at least some amount of compensation for damages, and therefore they did not need to worry about losing the dispute. This merit for them included, however, those negative side effects. They must be content with a small amount of compensation compared with their lost profits, because the polluter company was ready only to pay within his gain and not obliged to pay the total amount for damages. In addition, the settlement contract provided, in general, the waiver clause, with which the victims should give up any claim more, so far as the settlement meant the ultimate resolution of the dispute. Based on such a permanent settlement like this, the polluter company could continue his production activities, which caused more serious pollution after the settlement.

3. The second stage of the litigation

(1) Three examples of the damage suit

The situation of the first stage would not be changed without the legal action of victims against the polluter company, which was started not until with the Second Minamata Disease litigation in Niigata in 1967.

Before that, it was difficult for the pollution victims to bring a damage suit, initially because the Supreme Court declared in the judgment on the civil suit against the Osaka Alkali Company in 1916 that the production activity of the factory should not be held liable for damages, so far as some adequate equipments were installed to avoid the pollution. Osaka Alkali incident was the air pollution by the waste gas containing sulfuric acid from the polluter factory around 1900.¹¹ 37 farmers residing ca. 220m far from the factory filed the damage suit claiming for the compensation for the property damages of poor harvest in 1906. The plaintiffs won the first and the revision instance, but the Supreme Court returned the suit to the high

court which did not consider if the factory installed adequate equipments to avoid the pollution. The high court again declared the factory liable in 1916 because of lack of adequate equipments, so that the plaintiffs won the suit finally.

The second remarkable case would be the Morinaga Dry Milk litigation filed in 1956.¹² Morinaga Dry Milk incident was the case that the babies were severely poisoned by being fed on the dry milk contaminated with arsenic produced by Morinaga Milk Co. around 1955. It seemed easy in the early phase of the incident for the plaintiffs to prove the negligence of the company. However, the criminal court declared the director of the factory not guilty to causing death or injury through negligence¹³ in 1963. After that, the plaintiffs, mainly parents of the victimized babies, withdrew the damage suit in 1964, because they found it difficult to prove the negligence of the factory in the civil suit procedure, so as that they chose the way of the private negotiation with the causer company outside of the court and reached the private settlement in 1973.

Osaka Alkali Incident	Air pollution by sulfuric acid 1879 Foundation of the Osaka Alkali Co. 1906 Poor harvest of rice; 37 farmers filing the damage suit 1910 Plaintiff's win the first instance 1916 Reverse at the supreme court 1919 Final win of the plaintiffs at the high court
Morinaga Dry Milk Incident	Baby poisoned by arsenic in dry milk 1917 Foundation of Morinaga Milk Industry 1955 Appearance of the victimized babies 1956 53 victims filing the damage suit 1963 Not guilty of causing enterprise at the criminal suit 1964 Plaintiffs withdrawing the damage suit 1973 Settlement
Niigata Minamata Disease Incident	Water pollution and fish poisoning by organic mercury 1934 Building the Kanose chemical plant 1956 Appearance of the First Minamata Disease in Kumamoto Pref. 1965 The Second Minamata Disease caused by the Kanose chemical plant in Niigata Pref. 1967 77 victims filing the damage suit 1971 Plaintiff's win: total 270 mio JPY, 1-10 mio per capita

The first successful civil suit for pollution damages was the Second and Niigata Minamata Disease litigation filed by 77 victims in 1967.¹⁴ The polluter was the Kanose chemical plant of Showa Denko Company, who produced plastic materials and whose waste water polluted Agano river with organic mercury, which caused severe nervous disease leading to death. The Niigata District Court judged in 1971, about forty years ago, that the polluter company should compensate the plaintiffs for health and property damages in total amount of ca. 270 million JPY, that is in amount of 1 to 10 million JPY to each plaintiff according to the degree of his health damages.

(2) Features of the litigation

Here again I would like to identify some features of the damage suits in pollution cases.

Firstly, it is characteristic in the mass damage suit like as the Niigata Minamata Disease litigation that the plaintiffs claimed the uniform consolation money instead of lost profit of each plaintiff, because they wanted to keep themselves in solidarity coming from the idea that each person should have the same value as an human being.

Secondly as a matter of course, the bargaining agents were mainly lawyers within as well as outside of the legal procedure. Thereby it was remarkable that the supporter group of plaintiffs was formed by ordinary citizens as well as specialists in science who felt sympathy with them, so as that they could carry out the struggle in the court against well financed lawyers and specialists of the defendant company. In this sense, the damage suit of pollution cases appeared as the battle between the grass roots civic movement and the economical and industrial power represented by the Japan Business Federation.

Here we could find out the merit of the litigation. Because the legal process was carried out by the lawyers, the outcome of it was a

fairer one. This means that the amount of the compensation judged by the court must be much higher than the payment in the private settlement, even though it was in general not sufficient compared with the lost profit claimed by the plaintiffs. Furthermore it was also the merit of litigation that the judgment of court declared the production activity of the causing company to be liable and illegal, so as that the enterprise should stop producing so as to observe the law.

On the other hand, there are also some demerits of the litigation. First of all, the victims themselves had to pay the bargaining costs to file the suit, in form of the filing fee and the lawyer's consultation fee, even though they were mainly simple farmer and fisher with a small income. In addition, they had to spend much time until they won the suit, for example, the plaintiffs of the Kansai Minamata Disease litigation filed the suit in 1982 and won it finally at the Supreme Court in 2004, so that it took 22 years to get the compensation for damages. Further more in view to the outside of the court, there were many pollution victims who did not file the damage suit, partly because they worried about losing the suit, partly because they did not want themselves to be known as the pollution victims for fear of losing job or discriminated in the society. For these latent victims or rather third parties outside of the court, the judgment of the court could not provide any remedy, so that they were left unattended, especially because the Japanese legal system did not and do not know up to today such legal institute like as the class action in the opt-out style as known in common law system.¹⁵

4. The third stage of the legislation

(1) Three statutes

The government considered the situation of those unattended victims as serious and took

a comprehensive measure in form of statute to provide them the legal remedy, that is the Compensation Act for Pollution Victims enacted in 1973.¹⁶ About 50,000 victims have been designated as patients of the four typical pollution diseases of asthma, Minamata disease, cadmium poisoning and arsenic poisoning. The designated patients can receive the uniform compensation for damages from the polluter company as well as the medical care and the handicapped pension, and the bereaved family of them can receive either pension or compensation. The public support of medical care and pension are payed by the Environmental Restoration and Conservation Agency (ERCA) financed by the polluter companies and the automobile taxation. This statute has worked as the basic legal scheme of remedy for pollution victims. Adopting a similar legal scheme like this, the parliament legislated the Remedy Fund Act for Pharmaceutical Side Effect Damages in 1979,

which provides the compensation and the medical care together with the pension for the victims suffering under the harmful effect of drugs like as the victims of the SMON (subacute myelo-optic neuropathy), the thalidomide side effect etc.¹⁷

In recent years, there have arisen some serious issues besides the unattended victims of the typical pollution diseases or of the harmful side effect of drugs. The national parliament legislated special remedy acts for each of them. We are going here to look in two examples of those remedy acts.

The first example would be the Compensation Act for Health Damages caused by Asbestos enacted in 2006.¹⁸ The exposure to asbestos causes mesothelioma and lung cancer. 4,000 victims, that is a half of the total number of asbestos victims, have received the medical care and the pension from the worker's insurance. The rest half, who were left unattended because they are not workers but residents near the polluter or independent

Compensation Act for Pollution Victims in 1973	
Background	After damage suits of big pollution cases in early 1970s
Concerned	50,000 designated victims of asthma, Minamata, cadmium, arsenic
Remedy	Medical care, handicapped pension, bereavement pension
Financing	ERCA (Environmental Restoration and Conservation Agency) financed by polluter companies and automobile tax
Compensation Act for Health Damages caused by Asbestos in 2006	
Concerned	4,000 designated victims exposed to asbestos; Mesothelioma, Lung cancer Cf. 4,000 victims payed by workers insurance
Remedy	Medical care, health allowance, bereavement compensation
Financing	Remedy fund for asbestos victims, financed by gov. and polluter companies
Remedy Act for Victims of HCV tainted Blood Products in 2008	
Concerned	1,000 settled victims: transfusion of HCV tainted blood products; among latent more than 10,000 exposed
Remedy	Allowance: Death or cancer 40 mio Chronic hepatitis 20 mio HCV infection 12 mio
Financing	Remedy fund for HCV carriers; 2/3 of which financed by the pharmacy industry and 1/3 by the government

craftsmen working on contract, can now receive the medical care and pension in the name of health allowance based on the compensation act. In order to finance this social welfare payment, polluter companies and the government set up the Remedy Fund for Health Damages caused by Asbestos.

The second example would be the Remedy Act for Victims of HCV tainted Blood Products enacted in 2008.¹⁹ There assumes to exist more than 10,000 exposed to Hepatitis C Virus through transfusion of tainted blood products. About 1,000 of them, namely 10%, reached settlement based on the remedy act with the government, who was declared as liable for the damages in the judgment of the state reparation suit.²⁰ The designated patients can receive the compensation in the name of allowance in amount of 40 million JPY by death or cancer, 20 million JPY by chronic hepatitis and 12 million JPY by HCV infection. In order to finance this compensation, the pharmacy industry by 2/3 and the government by 1/3 payed for setting up the Remedy Fund for HCV Carriers.

(2) Features of the legislation

Hear again I would like to identify the characteristics of the legislation concerned with pollution issues.

Firstly, the legislator enacted the remedy act under the condition that the victims have once filed the damage suit and the court of the first instance has already passed the judgment on it. This means that the provision of the remedy act and the amount of the compensation is usually based on the judicial judgment. Therefore, so far as pollution cases are concerned, the legislative way of dispute resolution depends on the judicial procedure initiated by the pollution victims.

Secondly, the government played an essential role in the negotiation process of the legislation, because she was, in most cases, the defendant of the damage suit and was held liable for damages

in the judicial judgment. Therefore she was very concerned with reaching a settlement with the plaintiffs. If the both parties of the government and the victims achieved the settlement, the former articulated the agreement in form of a statute draft, which the legislator deliberated and enacted. This political process is based on the Japanese constitution and parliament system after the Westminster model.

Here we could find out the merit of the legislative way of dispute resolution. If the remedy act is enacted, all the victims can receive the compensation in form of medical care and monthly payment of pension, and they do not have to file the damage suit, to bear the legal struggle paying the consultation fee for lawyers and to wait for a long time to win the suit definitively.

At the same time, the legislative way of dispute resolution includes those demerits. The budget for the legislative remedy measure is not limitless but depends on the political decision in accordance with the financial situation, and therefore it is not guaranteed for the victims to receive the whole amount of lost profits, but they need to be ready to compromise. In addition there is a more serious problem, in fact, that not all the victims can be compensated with the remedy act, because the scientific authority, usually the specialist commission formed by famous medical doctors and professors, decides whether the applicant should be designated as a victim of the pollution disease or not. In other words, the causation between the pollution and the symptoms of the patient is decided not by the lawyers or rather judges in the court of law, but by the specialist committee set in and financed by the government. There would be a room of doubt whether the committee would be corrupt, which gets the salary from the government and knows that the designation leads to the expenses of the government.

IV. Legal Scheme of Compensation for Fukushima Radiation Leak

1. Overview of the legal scheme

The compensation scheme for victims of Fukushima radiation leak can be understood in comparison with the legislative way of dispute resolution in recent years, because it is based on the two statute, firstly the Compensation Act for Nuclear Damages enacted in 1961 and secondly the Act of Support Organization for Nuclear Damages enacted after the earthquake

on the March 11th 2011 in the Offshore Pacific of North Eastern Japan.²¹ In this legal scheme, there are three categories of the affected persons who can claim the compensation for damages against the liable agent Tokyo Electric Power Company (TEPCO). The first group consists of 60,000 residents who lived in the mandatory evacuation area within the 20 km distance from the Fukushima nuclear power station, and 40,000 residents who lived in the voluntary evacuation

Legal sources:	
Compensation Act for Nuclear Damages 1961 Government Ordinance of Examination Committee for Nuclear Disputes 1979 Act of Support Organization for Nuclear Damages 2011	
Concerned parties	Area - 60,000 mandatory refugees from 20km area - 40,000 voluntary refugees from 30km area Occupation for example - Farmers, fishers or other industry damaged in account - Workers having lost job or salary - Others indirectly affected like as tourist industry
Compensation in causation	- Inspection costs - Evacuation costs - Health damages - Solatium: 100,000-120,000 JPY per month - Loss in business account - Loss in salary - Tainted property - Loss in value of estate - Loss in business caused by rumors
Mediation for settlement	- Mediation panel, - Mediation office, - Examination committee built within the administration
Support organization	- supporting the compensation for damages - paying the compensation via TEPCO
Financing	- TEPCO as polluter - 12 nuclear electric power companies - National bond

area within 30 km distance. To the second group do belong the individual persons and companies who had the working place in the same area and have lost their income and the economical value of their property caused by the radiation leak. Mostly affected are the farmers, fishers and workers who have lost their job or salary. Also any other persons or companies belong to the third and last group, who are affected by the radiation leak even indirectly and can claim the compensation against TEPCO.

All the persons and companies in these three groups can receive the compensation for damages caused by the melt down of the nuclear power plant. The range of the causation extends from the direct costs of inspection, evacuation and health damages together with consolation money, to the lost profits in business account, salary or personal income, further more to the loss in economical value of contaminated property and real estate, and at last to the lost profits in business caused by rumors and prejudice.

The bargaining of the affected persons or companies with TEPCO is mediated by the Mediation Panel set up in the Mediation Office under the control of the Examination Committee constituted in the Ministry of Education and Science. The payment of the compensation presupposes that the concerned party has reached a settlement with TEPCO through the mediated bargaining. Anyway the mediation panel belongs not to the judicial body, but to the administration, therefore one could be skeptical if it were neutral to the both negotiation parties.

To finance the huge amount of the payment for damages, the Support Organization has been established on purpose, which has been payed by TEPCO itself together with the other 12 nuclear electric power companies in Japan and the government who decided newly to issue the special national bond for recovery from the catastrophe.

Here arises the question, which party will be supported by the special support organization. The answer is surly not the affected persons, but obviously TEPCO herself.

2. Evaluation of the compensation scheme

I have already made some remarks about what is problematic in the Japanese way of dispute resolution seen in the Fukushima case. At the end of my report, I would like to summarize and suggest some more concerns about it.

The first problem is the question whether the bargaining mediator would be neutral. If the Mediation Panel would stand on the side of TEPCO and the government who intends to retain her, the dispute resolution based on the legislative scheme would be an unfair one.

The second problem is the question who pays the compensation substantially and finally. So far as the Support Organization for payment of the compensation is financed by TEPCO, the other nuclear power companies and the government, the payment will be substantially and finally born by the electricity consumers and the taxpayers, i. e. the citizens living in Japan who have nothing to do with the cause of the melt down. Would this resolution mean a fair distribution of costs caused by the failed breakdown?

This situation will thirdly lead to severe deficit in the corporate governance. It is assumed that TEPCO should pay for the compensation in total amount of ca. 4 trillion JPY, whereas her net assets amounted ca. 2.5 trillion at the end of the fiscal year of 2010. For this excessive debt in the balance sheet are responsible the managers and the directors of the company. If the payment of this huge amount would be financed by the Support Organization and the compensation would be substantially and finally payed by the consumers

and the taxpayers, the managers and directors would be exempted from the responsibility for their failure in crisis management to avoid the catastrophic melt down.

Fourthly and last, the enormous scale of pollution like as Fukushima's melt down brings inevitably about social costs and social damages which will never be compensated by the polluter. Karl William Kapp formulated firstly in 1950 social costs as: "all direct and indirect losses suffered by third persons or the general public as a result of private economic activities".²² The Japanese legal system does not know any measure against social costs and social damages. I will not enter into details of the discussion of Kapp, but want to explain it with my personal experience in relation to the Fukushima's case. I visited on September 22th 2011, six months after the earthquake, the Soma High School in Fukushima Prefecture located about 40 km far from the nuclear power station, and made a lecture to the students. There I found out also the evacuated students from the Haramachi High School located about 20 km far from the power station. Haramachi High is famous as a qualified school, where good students are learning diligently in order to be granted admission to elite universities. But the problem is as follows: If one student there fails to succeed in the next admission examination to a qualified university like as the Tohoku University, and if he has to visit the catch up school for one year more, who will pay the tuition fee for him? Because the causation between the radiation leak and the failure in the admission exam is interrupted, TEPCO does not need to pay him for the tuition fee according to the dominant opinion, and he should bear the tuition fee and one year time by himself. But the question is whether he would also be a victim of the Fukushima melt down in some sense.

My reform proposal from this point of view

looks like as follows. Firstly, the compensation for damages should not be decided by the administrative authority, but by judicial body. Secondly, TEPCO should be thrown into bankruptcy and liquidation in order for her managers and directors to take responsibility and for her shareholders to give up all their profits related to her. Thirdly and last, the judicial remedy can not cover all the circumstances influenced by such huge pollution like radiation leak and therefore should be complemented and combined with the administrative measure in view to the social welfare, particularly in order to compensate the third parties who bear the social costs.

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- 10 Article 695 (Settlements) of the Japanese civil code: "A settlement shall become effective when the parties to a dispute promise to settle the dispute through reciprocal concessions."
- 11 Cf. Kawai, K.: "Osaka Alkali Incident", *Hokudai Hougaku Ronsyu*, vol. 31, 1981, pp. 1053-1095; Shiomi, Y.: "Osaka Alkali Incident", *Jurist*, no. 171 - hundred cases in environmental law, 2004, pp. 4-5.
- 12 Cf. Nose, E.: *50 years after the Morinaga dry milk incident*, Kurashiki: 2005, p. 10 ff. ; Kawana, H. : *Documents of Japanese pollution, vol. 3, drugs and foods poisoning*, 2nd printing, Tokyo 1994, pp. 238-291; Nottage, L.: *Product Safety and Liability Law in Japan*, London 2004, p. 40 f.
- 13 Cf. Article 211 of the Japanese Penal Code (Causing Death or Injury through Negligence in the Pursuit of Social Activities): the first clause in the section 1: "A person who fails to exercise due care required in the pursuit of social activities and thereby causes the death or injury of another shall be punished by imprisonment with or without work for not more than 5 years or a fine of not more than 1,000,000 yen".
- 14 Cf. Bando, K.: *30 years of Niigata Minamata Disease*, Tokyo 2000; Kawana, H. : *Documents of Japanese pollution, vol. 1 intensifying pollution*, 4th printing Tokyo 1995, p. 56 ff., 336 ff.
- 15 As a very important contribution to these problems in Japan, see Tanaka and Takeuchi: *Role of private agents in realizing the law*, 3rd printing 2005, p. 70 ff.
- 16 Cf. Kawana, H. : *Documents of Japanese pollution, vol. 2: Environmental Agency*, 2nd printing Tokyo 1992, p. 509 ff; Awaji, T.: *Theory of pollution compensation*, complemented edition, Tokyo 1978, p. 177 ff.
- 17 Cf. Endo, H.: "Compensation for victims of the pharmaceutical side effect", *Jurist*, no. 691, 1979, pp. 95-98.
- 18 Cf. Kankyo-shou (Environmental Ministry): "Compensation Act for Health Damages caused by Asbestos", *Jurist*, no. 1318, 2006, pp. 57-61.
- 19 Cf. Kasamatsu, T.: "Remedy Act for Victims of HCV tainted Blood Products", *Jurist*, no. 1353, 2008, pp. 54-57.
- 20 Cf. Judgment of the Osaka District Court on the 21. Jun. 2006; of the Fukuoka District Court on the 30. Aug. 2006; of the Tokyo District Court on the 23. Mar. 2007; of the Nagoya District Court on the 31. Jul. 2007. On the contrary, the Judgment of the Sendai District Court on the 7. Sept. 2007 declared that the government was not liable for the damages caused by the HCV tainted blood products.
- 21 Cf. Aribayashi, K.: "Enacting process and overview of the Act of Support Organization for Nuclear Damages", *Jurist*, no. 1433, 2011, pp. 32-38; Wagatsuma, S. "Conception and problems in two acts on nuclear power", *Jurist*, no. 236, 1961, pp. 6-10.
- 22 Kapp, K. W.: *The Social Costs of Private Enterprise*, 2nd printing, New York, 1975, p. 13.

Notes

- 1 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 Sept. 2011 to Sept. 2013 supported by the Mitsui & Co., Ltd., Environment Fund.
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- 3 From a legal point of view, pollution issues are not necessarily restricted to the cases caused by human activities making air, water, soil etc. dirty, but rather could be dealt with in a same theoretical scheme as the issues of drugs and foods poisoning and noise nuisance. To this group of issues, I would like to use the word "pollution" in a wide sense. A similar usage of the word can be seen in: Kawana, H. : *Documents of Japanese pollution, vol. 3, drugs and foods poisoning*, 2nd printing, Tokyo 1994.
- 4 See details in: Tanaka, S.: *Contemporary jurisprudence*, Tokyo 2011, p. 105 ff.
- 5 Cf. Article "Rechtsstaat", in: *Creifelds Rechtswörterbuch*, 19. Aufl. München 2007, S. 947 ff.
- 6 Cf. Article "rule of law", in: *Dictionary of Anglo-American Law*, 12. printing Tokyo 2004, p. 743.
- 7 Cf. amongst others Arahata K.: *Collapse of the Yanaka Village*, Tokyo 1999; Sae S.: *Tanaka Sho-zo*, Tokyo 1993.
- 8 Cf. Kawana, H. : *Documents of Japanese pollution, vol. 1 intensifying pollution*, 4th printing Tokyo 1995, p. 150 ff.
- 9 Cf. Kawana, H. : *Documents of Japanese pollution, vol. 1 intensifying pollution*, 4th printing Tokyo 1995, p. 159 ff.; Tajiri M.: *Battle with the dead sea of Yokkaichi*, Tokyo