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Japanese Law for Remediation of Soil Contamination

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Abstract

For more than thirty years, Japan has had legislation addressing various problems of soil contamination in agricultural areas. The Agricultural Land Soil Contamination Prevention Law 1970 (Japan) (ALSCPL) has contributed to redressing such contamination. However, until recently, there has been no national legislation directly dealing with soil contamination in urban areas, despite the large number of known and unknown contaminated urban sites in Japan. After many years of concern expressed by environmental NGOs and the public, the Ministry of the Environment introduced the Bill for Remediation of Soil Contamination into the Japanese National Diet on 15 February 2002. After brief deliberation in the National Diet, the Bill was enacted into law on 22 May 2002 and took effect on 15 February 2003. This article evaluates the legal framework in Japan for soil contamination control. Comparisons are made between the RSCL and the US Comprehensive Environmental Response, Compensation, and Liability Act 1980 (CERCLA) and the recent "Brownfields" amendments to that Act. It is argued that the Law for Remediation of Soil Contamination (RSCL) should better articulate its terms, and further elaborate liability and cost recovery mechanisms in order to lessen unnecessary disputes. Greater accountability in making standards, guidelines and regulations and more secure public access to information is also needed. Finally, the article assesses the potential impacts of the RSCL. These include the creation of lucrative opportunities for environmental business and greater environmental awareness and due diligence in property transactions.

Key Words

Contaminated land, Japan, US

Introduction

In the course of redevelopment of former industrial sites in urban areas, soil contamination caused by heavy metals or volatile organic compounds (VOCs) have been discovered. According to a recent study done by the Ministry of the Environment (MOE), 134 contaminated sites in urban areas were reported in 2000.¹ It is no doubt that those reported sites constitute the tip of the iceberg and that there is a large number of unknown contaminated urban sites.

With respect to soil contamination in agricultural land, the Japanese government enacted the Agricultural Land Soil Contamination Prevention Law (ALSCPL)² in 1970 after severe suffering from "Itai-itai" cadmium poisoning. For more than 30 years, this law has addressed various problems of soil contamination in agricultural areas and has contributed to redressing such contamination.

However, until recently, there has been no national legislation directly dealing with soil contamination in urban areas, except for some regulations relating to dioxin emission control. Although it is highly conceivable that urban soil contamination in a community will pose significant adverse health impacts on members of the community, in the absence of effective control mechanisms in national legislation, voices for such potential health risks have been neglected for a long time. It is also of concern that surface water percolating through contaminated soil eventually reaches groundwater and may give rise to groundwater contamination. In addition, the non-existence of national legislation has hampered transparent real estate transactions in that a seller of contaminated property does not have to disclose relevant information about the property and a buyer often acquires such property without exercising due diligence. Moreover, the standard of liability and determination of potentially responsible parties are ambiguous and this causes unnecessary confusion as to who is responsible and for what amount.

After many years of concern expressed by environmental NGOs and the public, MOE introduced the Bill for Remediation of Soil Contamination into the Japanese National Diet on 15 February 2002. On 22 May 2002, after brief deliberation, the Bill was enacted as the Law for Remediation of Soil Contamination (RSCL) without much modification.³ The RSCL took effect on 15 February 2003.

1 Water Environment Department, Environment Management Bureau, Ministry of the Environment (MOE) *Summary of Current Status of Soil Contamination and its Countermeasures in 2000* (MOE, Japan: February, 2002).

2 Nouyouchino Dojouno Osenni Kansuru Horitsu (Agricultural Land Soil Contamination Prevention Law) Law No. 139 of 1970, amended by Law No. 160 of 1999 (ALSCPL).

3 In Japanese custom, before a bill is introduced into the National Diet, the Cabinet members including the Prime Minister, as well as the Diet members of the majority parties, will have already approved the basic framework of the Bill through preliminary negotiation. Thus MOE simply introduced the Bill into the Diet through the Cabinet in anticipation of its quick passage.

Following the notorious Love Canal experience, the US Congress responded to widespread contamination of soil by enacting the CERCLA in 1980.⁴ Likewise several European countries such as Germany and the Netherlands have addressed remediation of contaminated soil in legislation. Now Japan joins these countries, offering another model for examining what is an appropriate legal framework to address urban soil contamination.

This article will address the way in which the new legislation will influence land use and business transactions in Japan. This paper is organised as follows: First, it informs readers of the background to soil contamination in Japan by referring to two famous cases. It then proceeds to describe the current legal framework for soil contamination control. The benefits and shortcomings of the RSCL will then be examined by comparing it with the US CERCLA and the recent Brownfields amendments. Finally the consequences of introduction of the RSCL are evaluated, focusing particularly on its implications for commercial transactions in Japan.

Historical Perspectives of Soil Contamination In Japan

The Ashio Copper Poison Case

Although it is likely that the problem of water and soil contamination in Japan began before the industrial modernisation, the first major case of water and soil contamination affecting human health and livelihood occurred during the Meiji Period (1868-1912).⁵ At that time, the Furukawa mining company was one of the biggest mining companies and maintained and operated copper mining facilities in the up-stream of Yanaka Village. Mine wastewater from the Ashio copper mine was dumped into an adjacent river. By poisoning fish and agricultural products, this eventually inflicted enormous economic as well as health damage on the villagers.⁶ This incident forced the Meiji Government to take some measures to alleviate and solve the water and soil contamination. The government condemned all polluted lands exercising the governmental right of taking. The polluted lands were then flooded to become a part of a reservoir under the pretext of flood prevention. The

⁴ Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC Ch 103 §9601-9675.

⁵ See Water Environment Department, MOE *Water Environment Management in Japan* (MOE, Japan: June 2001).

⁶ Ibid. See Shiro Kawashima "A Survey of Environmental Law and Policy in Japan" 20 *N.C.J. Intl L.&Com Reg.* 231 at 234 (1995).

villagers were thereby evicted with little or no compensation.⁷ The eviction of the villagers and construction of the reservoir were sweeping “remedies” implemented by the government for the purpose of resolving the Ashio copper poison case.⁸

The Toyama Itai-itai Disease Case

Rapid economic growth during the 1960s caused and spread serious infestation of water and soil contamination, and its attendant problems, all over Japan. Cadmium contamination in the Jinzu River in Toyama resulted in an intolerably painful disease called Itai-itai (because patients of the disease often screamed “it hurts, it hurts”).⁹ The disease was caused by the accumulation in bone tissues of excessive cadmium that came from factory wastes discharged by Mitsui Mining and Smelting Company.¹⁰ While smelting and refining ores, the company had continuously discharged large volumes of wastewater into an adjacent river without proper treatment, especially in the period 1910–1940. In 1968, affected residents filed a lawsuit in Toyama District Court claiming that heavy metals as well as cadmium in wastewater had accumulated in agricultural lands and groundwater, and they suffered from Itai-itai disease by consuming contaminated agricultural products and water.¹¹ In 1971 the Court held the company liable for damages to the plaintiffs, caused by its operation and awarded compensation to the plaintiffs. Additionally, the Court ordered specific performance, requiring the company to undertake cleanup and implementation of remediation plans for contaminated areas.¹² As of today, the cleanup operation is still ongoing. The company spent approximately Japanese ¥11.4 billion for compensation and remediation in the period 1973–1995.¹³

7 Kawashima, note 6 at 235.

8 Ibid.

9 MOE, note 5.

10 Kawashima, note 6 at fn 45.

11 Yoshihiro Nomura “Itai-itai Disease Case” 126 *Bessatsu Jurisato* 54 (1994). See also Akio Hata “Itai-itai Disease and its Remediation” in Kogai Kankyoho no aratana Tenkai *The New Development of Environmental Law Theory* (Yoshihisa Awaji & Shunichi Teranishi eds, 1997) 328.

12 Judgment of 30 June 1971, Toyama District Court, 22 Kaminshu; Nois 5 & 6, Extra No at 1 (Japan).

13 Hata, note 11 at 330.

Legal Framework for Soil Contamination

Agricultural Land Soil Pollution Prevention Law

In response to acute social concerns and increasing occurrences of soil contamination in agricultural lands, the ALSCLPL was promulgated in 1970 to prevent and control soil contamination in agricultural lands caused by specific harmful substances including cadmium.¹⁴ The purpose of the law is to contribute to the protection of the health of people and maintenance of the desirable living environment by taking proper measures to prevent the contamination of agricultural soil and through the utilisation of polluted agricultural lands.¹⁵ To achieve the purpose, the prefectural governors can designate agricultural land soil contamination policy areas (policy areas) when it is recognised or suspected that agricultural crops or livestock may be harmful to human health.¹⁶ When governors designate a policy area, they are to announce such designation publicly.¹⁷ After the designation, the governors are to design, within a reasonable time, policies for agricultural land soil contamination (policy project) in order to prevent or eliminate the agricultural land soil contamination caused by specific harmful substances in the zones, or with respect to utilisation of polluted agricultural lands.¹⁸ The law requires the governors to continuously monitor the condition of such polluted agricultural lands¹⁹ and to report the result of monitoring to the MOE.²⁰

In 1994, MOE established environmental quality standards for soil contamination (EQS) pursuant to the Basic Environmental Law.²¹ The EQS is not binding. It is a benchmark for compliance with what is desirable in terms of protecting human health and conserving the living environment. The standard is reviewed according to the accumulated scientific data.²² Currently there are EQSs for 27 substances including cadmium, chromium and arsenic.

In addition, Guidelines for Investigation and Countermeasures for Soil and Groundwater Pollution were established in 1994 to ensure the smooth implementation of surveys and countermeasures based on the EQSs.²³ With respect

14 Kankyo Ho (Environmental Law) (Yasutaka Abe & Yoshihisa Awaji eds, 2nd ed, 1998) at 198-202.

15 ALSCLPL Art. 1.

16 ALSCLPL Art. 3, No. 1.

17 ALSCLPL Art. 3, No. 4.

18 ALSCLPL Art. 5, No. 1.

19 ALSCLPL Art. 11-2, No. 1.

20 ALSCLPL Art. 11-2, No. 2.

21 Kankyo Kihon Ho (The Basic Environmental Law) Law No. 91 of 1993, Art. 16.

22 MOE, note 5 at 34.

23 MOE *Policy and Programs, Conservation of Soil Environment* <www.env.go.jp/en/pol/nemj/soil.html> (15 March 2002).

to soil contamination in urban areas caused by the pollutants (except dioxins) business owners have been taking voluntary action in accordance with the Guidelines (revised in January 1999). Although the Guidelines are not legally binding, each business owner is encouraged to survey the soil whenever it modifies its land and to take any necessary action if the condition of the soil fails to comply with the EQS.²⁴ Evaluation of the Agricultural Land Soil Pollution Prevention Law.

Evaluation of the Agricultural Land Soil Pollution Prevention Law

According to research conducted by MOE, so far 7156 ha of agricultural land have been determined to exceed the EQSs,²⁵ of which 6266 ha has been designated as policy areas. As of 2001, policy projects that prevent or eliminate contamination have been implemented with respect to 5818 ha of the 7156 ha (81.2 per cent of the contaminated areas), and reportedly have already completed cleanup.²⁶ Consequently, the area of contaminated agricultural land has steadily declined from 5500 ha in 1976 to 1338 ha in 2001.²⁷

After 30 years of implementation of the law, MOE claims that the law has attained a certain level of success and has contributed to the remediation of contaminated agricultural land. There is no doubt that the law has played a significant role in coping with land contamination. However, as it applies only to agricultural land²⁸ it is unable to address soil contamination in residential and commercial areas. Likewise the law only regulates specific harmful substances, which are defined as “substances such as chemicals like cadmium, etc., contained in agricultural land soil ...” that are designated by Cabinet order.²⁹ Radiation substances are excluded. The definition confers broad discretion on the Cabinet in deciding which specific harmful substances are to be regulated. The Cabinet Order names only cadmium, copper, arsenic, and their chemical compounds as specified harmful substances under the law. In an age when huge volumes of chemical substances exist and with new substances being created every day, it is difficult to regard the law as providing sufficient safeguards even with respect to agricultural land. It would be all the more deficient if applied in urban areas.

24 MOE, note 5 at 35.

25 MOE, note 5 at 34.

26 Ibid.

27 Ibid.

28 Agricultural land is defined as “the land which is used for cultivation purposes, pasturage of domestic animals or grassland for domestic animal breeding”: ALSCPL Art. 2, No. 1.

29 ALSCPL Art. 2, No. 3.

Other Environmental Laws Related to Remediation of Soil Contamination

Since soil is known to function as a water filter and producer of foods, and is well connected with various components of the environment, other Japanese environmental laws, in addition to the ALSCL, contain measures which can be used to address soil contamination.

Water Pollution Control Law

The Water Pollution Control Law was amended in 1996 to add a new provision relating to cleanup of groundwater contamination.³⁰ The provision states in part:

When prefectural governors recognize that toxic substances from specific facilities leak into ground or groundwater, and the leakage causes or is feared to cause harm to human health, the governors, in accordance with Ministerial Ordinance from MOE, can order the owner or operator of such specific facilities (including those who become the owner or operator by reason of inheritance of such facilities or merger) to take any necessary countermeasures against groundwater contamination.

It should be noted, however, that this provision does not apply to those owners or operators if they did not cause, or contribute to, the leakage during their ownership or operation. This does not impose strict liability on the owner or operator without their fault. Moreover, as one commentator points out, the scope of the provision is rather narrow and thereby may have limited affect against soil contamination.³¹ The provision is only applicable to the situation where there is recognisable harm to human health. MOE interprets this as being when groundwater is directly or indirectly used for drinking. Therefore prefectural governors cannot issue an order to mitigate soil contamination where activities only adversely affect soil or groundwater which is unrelated to human consumption.³²

Waste Disposal and Public Cleaning Law

The Waste Disposal and Public Cleaning Law was amended in 1997 to include stringent standards for closure of waste disposal facilities.³³ The amendment also

30 Suishitsu Odaku Boshi Ho (Water Pollution Control Law), Law No. 138 of 1970, amended by Law No. 58 of 1996.

31 Hitoshi Ushijima Chikasui, *Dojou Osenno Genjou to Kadai* (State of groundwater and soil contamination) in Kankyo Mondaino Yukue "The Future of Environmental Problems" *Zoukan Juristo* (1999) 155 at 159.

32 Ibid.

33 Haikibutsushori Oyobi Seisouni Kansuru Horitsu (Waste Disposal and Public Cleaning Law) Law No. 138 of 1970, amended by Law No. 85 of 1997.

enables local governments to cope with soil contamination caused by improper waste disposal at waste disposal facilities. The law states:³⁴

When there is or feared to be obstacle to maintain good living environment due to soil contamination, the prefectural governors (and in some cases, heads of municipalities) can order the owner or operator of waste disposal facilities to take necessary actions to eliminate such obstacle in a reasonable time.

Law Concerning Special Measures Against Dioxins

Responding to a growing concern that there is a noticeable increase in dioxin levels in the ambient environment due to emissions from waste disposal facilities, the Law Concerning Special Measures Against Dioxins was enacted in 1999.³⁵ With regard to soil contamination by dioxins, the law provides in part that:³⁶

Prefectural governors shall be able to designate as the controlled areas against soil contamination by Dioxins, the areas where the status of soil contamination by Dioxins fails to comply with standards for soil contamination, and satisfies the conditions established by the Cabinet Order as being necessary to conduct the removal of contamination by Dioxins.

Like the ALSCLP, the law also requires prefectural governors to establish policy plans with respect to soil contamination by dioxins after designating the controlled areas.³⁷ Although the law appears comprehensive in dealing with soil contamination caused by dioxins, critics have pointed out a defect in its implementation; namely, that in order to take a countermeasure, it is a necessary first step for prefectural governors to designate a controlled area. Prefectural governors, however, are reluctant or unable to do so for administrative reasons. For example, the affected area may be too small, or the prefectural government may lack skilled personnel and resources to conduct comprehensive scientific assessments of all suspected areas.³⁸ As a result the law has not operated as effectively as expected.

34 Ibid, Art. 19, No. 4-5.

35 Daiokishinrui Taisaku Tokubetsushochi Ho (Law Concerning Special Measures Against Dioxins) Law No. 105 of 1999.

36 Ibid, Art. 29, No. 1

37 Ibid, Art. 31.

38 See *A Report from Tokorozawa, a City is Polluted by Dioxins* <www3.airnet.ne.jp/dioxin/osendojoushori.html> (17 March 2002).

Awareness of Widespread Soil Contamination in Urban Areas

Despite the implementation of the ALSCL and other relevant environmental laws, these laws are not sufficiently comprehensive to handle soil contamination, especially in urban areas.

Soil contamination caused by chromium slag (hexavalent chromium) at former chemical factory sites in Tokyo surfaced in 1975. This triggered concern over soil contamination in urban and non-agricultural areas.³⁹ Since then, the discovery of instances of urban soil contamination has rapidly increased throughout Japan, mainly due to accelerated urban redevelopment of former industrial sites. Presently most of the soil contamination is associated with former chemical and electroplating industries and the major contaminants are lead, hexavalent chromium, and trichloroethylene.⁴⁰

There have been several recent reports of soil contamination at former factories of large corporations and the public has begun to realise the existence of serious soil contamination in their vicinity. For instance, in 1998 Yamaha and Epson announced that their factories were contaminated by trichloroethylene. Similarly, Mitsubishi Chemical Corporation, Nissan Motor Company, Minolta and other corporations have disclosed information on soil contamination at their premises.⁴¹

The number of reports of soil contamination in residential areas is also rising. In 2000 significant soil contamination was discovered at apartment construction sites where 20 years ago a chemical fertiliser factory operated. Oil-soaked soil and lead, greatly exceeding the EQSs, were detected there.⁴² Developers and homeowners often purchase real property on which factories formerly operated, without knowledge of contamination or due diligence. The more attention that is given to real property transactions and the more due diligence exercised, the more soil contamination in urban areas will inevitably be found in the future.

Under these circumstances, several local governments (especially those governments which have a number of contaminated former industrial sites within their area) have currently come up with their own ordinances and programs to tackle urban soil contamination. Some local governments, such as Kimitsu City in Chiba

39 Bureau of Environment, Tokyo Metropolitan Government *The Environment in Tokyo* <www.kankyo.metro.tokyo.jp/kouhou/english2001/htm> (16 March 2002).

40 MOE, note 23.

41 Fumikazu Yoshida *IT Osen (IT Pollution)* (2001) at 102-105. See Water Environmental Department, MOE *A Survey of State of Soil Contamination in 2000* (MOE, Japan: 2002).

42 Hiroaki Sugimoto *Soil Contamination Found in a Residential Area*, *Asahi Shimbun*, 18 February 2002 at 22.

prefecture and Hatano City in Kanagawa prefecture have become well renowned for their achievements in controlling and alleviating soil contamination in urban areas.⁴³ However, in the absence of national legislation addressing soil contamination, the majority of local governments have experienced difficulties in developing viable soil contamination prevention programs that ensure both prompt cleanup and release of liability thereafter.

Legislation for Remediation of Soil Contamination

Recognising that lack of national legislation dealing with soil contamination discourages further redevelopment and cleanup efforts in urban areas, MOE on 15 February 2002 introduced the Bill for Remediation of Soil Contamination into the National Diet. On 22 May 2002 the Bill was passed and took effect on 15 February 2003. Its purpose is to protect human health by recognising the status of soil contamination, delineating soil inspection procedures and by effective implementation of countermeasures.⁴⁴

The RSCL requires that whenever “specific facilities”⁴⁵ cease to operate, the owner or operator of such facilities must conduct a soil inspection of the premises to assess whether the levels of soil contamination exceed applicable EQSs. In doing so, the owner or operator shall retain an inspector who is certified by MOE as having sufficient skill and knowledge (certified inspector) and they must report the results of the inspection to prefectural governors.⁴⁶

In addition to conducting a soil inspection of the premises of former specified facilities, certain other real property (including property where specific facilities are currently in operation) may be the subject of an order requiring the owner or operator to undertake a soil inspection by a certified inspector and report the result of the inspection to the prefectural governor.⁴⁷ Such an order may be issued when the prefectural governor determines that the property may cause harm to human health.⁴⁸

43 In addition to their well functioning ordinances, these two cities are comparatively lucky in that many industries which own contaminated sites have voluntarily complied with the ordinances and spontaneously carried out cleanup programs. See generally Yoshida, note 41.

44 Dojou Osen Taisaku Ho (Law for Remediation of Soil Contamination) (RSCL) Art. 1.

45 Specific facilities are defined under the Water Pollution Control Law, note 30, Art. 2 No. 2 as those facilities which discharge wastewater including cadmium or other substances causing harm to human health, or discharge wastewater exceeding the environmental quality standard for Chemical Oxygen Demand.

46 RSCL Art. 3, No. 1.

47 RSCL Art. 4, No. 1.

With respect to those properties which turn out to exceed the EQSs, prefectural governors must designate such properties as controlled areas, until the areas are assessed to pose no harm to human health.⁴⁹ The governors must announce publicly such designations and create a publicly accessible registry to identify and list such areas.⁵⁰

When a governor considers that soil contamination in the controlled areas may cause harm to human health, the governor can direct the owner or operator of such controlled areas to take appropriate measures⁵¹ to mitigate the harmful condition.⁵² If there is an identifiable polluter (including those who are in the position of the polluter as a result of inheritance or merger and acquisition) different from the owner or operator of a controlled area, the governor can order such polluter to take necessary countermeasures in respect of soil contamination, provided that the owner of the controlled area has no objection to having the polluter implement such countermeasures.⁵³

In the case where the owner of the controlled area engages in cleanup activities pursuant to an order from the governor but was not responsible for causing such pollution, such owner is entitled to indemnification for any cleanup costs from a polluter if such polluter is identified later.⁵⁴

If a person intends to modify existing land use in a controlled area or remove soil therefrom, such person must notify the plan to the governor at least 14 days prior to the intended modification.⁵⁵ If the governor finds that such modification of land use is inconsistent with standards set in MOE's Ministerial Ordinance, the governor can require such person to make necessary corrections to the modification plan.⁵⁶

To ensure reliable soil inspections, MOE will certify soil inspectors who have sufficient engineering technology and expertise.⁵⁷ Similarly, to effect the smooth implementation of soil contamination measures, MOE will appoint an entity which

48 Mere allegation of threat to human health does not suffice to trigger inspection orders by prefectural governors and such threat must be shown by clear evidence with a high degree of certainty: *Bill for Remediation of Soil Contamination: Hearings Before the Committee on Environment*, 154th Diet (2002) (statement of Tetsuya Nishio, Director of Environmental Management Bureau, MOE).

49 RSCL Art. 5, No. 1-4.

50 Ibid.

51 Such measures include restriction of entry, containment of polluted soil, biological remediation and so on. See, MOE, Press Release on February 14, 2002 < www.env.go.jp/press > (16 March 16, 2002).

52 RSCL Art. 7, No. 1.

53 Ibid. Since, under Japanese property law, the property owner has absolute control over his or her land, the Law appears to be cautious by requiring the agreement from the owner before a polluter can enter the property to implement measures against soil contamination.

54 RSCL Art. 8, No. 1.

55 RSCL Art. 9, No. 1.

56 RSCL Arts. 9, No. 4.

57 RSCL Arts. 10-19.

will provide the necessary guidance or financial assistance to relevant parties, and disseminate information to the public.⁵⁸ Such entity is to establish a support fund (the Fund) comprised of governmental subsidies and voluntary donations from major industries.⁵⁹

For those who do not cause soil contamination of the property, but are obliged to undertake cleanup actions because of their status as owner of the property, the Japanese government is to furnish necessary financial assistance or technical advice. In doing so, the government will give special consideration to small and medium-sized businesses, because it is well expected that their limited financial resources are probably insufficient to bear all the costs of cleanup.⁶⁰

In terms of penalties, the RSCL sets a maximum punishment of a fine of Japanese ¥1000 000, or one year imprisonment, or both.⁶¹

Comparison with the US CERCLA and Recent Brownfields Amendments

Overview of CERCLA⁶²

The Comprehensive Environmental Response, Compensation, and Liability Act⁶³(CERCLA) authorises federally funded cleanups of hazardous waste sites by the EPA. The EPA may respond in two ways. It may conduct short-term “removal actions” and it may take longer-term and more expensive cleanup actions known as “remedial actions”. Federally funded response actions are carried out under CERCLA §104, 42 USC §9604.

Under CERCLA, the EPA may either issue administrative orders directing potentially responsible parties (PRPs) to cleanup sites under CERCLA §106, 42 USC §9606 or may perform the response action itself and recover its costs of cleanup from the PRPs under CERCLA §107, 42 USC §9607. These actions are subject to the provisions of CERCLA §122, 42 USC §9622.

58 RSCL Art. 21, No. 1-4.

59 RSCL Arts. 22-23.

60 RSCL Art. 33, No. 1-2.

61 RSCL Art. 38.

62 See Timothy G. Rogers, Laurence S. Kirsch, and Paul D. Stevelman “Environmental Liability Pitfalls for Public Employee Retirement Systems” (1990) 2 *Fordham Envtl L. Rep.* 1, 2-9.

63 CERCLA, 42 USC Ch 103 §9601-9675.

Four classes of persons are liable for cleanup costs under CERCLA.⁶⁴ Included in those categories is any person who: (1) currently owns or operates a facility at which hazardous substances have been disposed (even if such person did not dispose of the hazardous substances, was not aware of past disposal, and did not own the property at the time of disposal); (2) formerly owned or operated a facility at the time of disposal of any hazardous substance; (3) arranged for disposal or treatment (or for transportation for disposal or treatment) of any hazardous substance at a facility; or (4) transported a hazardous substance to a facility selected by such person.

The hazardous waste definition in CERCLA incorporates by reference hazardous and toxic substances under the Resource Conservation and Recovery Act 1976, the Clean Water Act, the Clean Air Act, and the Toxic Substances Control Act.⁶⁵ This is a very broad definition. As a consequence, many industrial facilities, as well as residences and offices, may be locations at which some hazardous substances have come to be located and thus may be considered hazardous substance facilities.

CERCLA provides for recovery of costs of removal or remedial action incurred by the US or a State, or necessary costs of response incurred by any other person.⁶⁶ CERCLA imposes both strict liability and joint and several liability. Therefore, a person responsible for only a small fraction of the waste at a site could be liable for all of the cleanup costs. That minor contributor would then be forced to seek a cost recovery action under CERCLA §107, 42 USC §9607.

Under CERCLA §107(b), 42 USC §9607(b), there is no liability if a PRP can establish on a preponderance of the evidence that the release or threat of release of a hazardous substance and the damage resulting therefrom were caused solely by: (a) an act of god; (b) an act of war; or (c) an act or omission of a third party, other than an employee or agent of the PRP, or other than one whose act or omission occurs in connection with a contractual relationship, existing directly or indirectly, with the PRP. A manifestation of the third party defence allows a landowner to escape liability by showing that the harm was caused solely by a third party. Partial fault by the landowner invalidates the defence.

The CERCLA framework for cleanup processes is as follows:⁶⁷

- (1) The EPA or state environmental agency may investigate a site and prepare a Preliminary Assessment (PA). The investigating agency may conduct these investigations without even contacting the PRPs;

⁶⁴ CERCLA §107(a)(1)-(a)(4), 42 USC §9607(a)(1)-(a)(4) (2000).

⁶⁵ Respectively 42 U.S.C. §6901-6992k (2000), 33 U.S.C. §1251-1387 (2000), 42 U.S.C. §7401-7671q (2000), 15 U.S.C. §2601-2692 (2000).

⁶⁶ CERCLA §107(a)(4)(A)-(a)(4)(B), 42 USC §9607(a)(4)(A)-(a)(4)(B) (2000).

⁶⁷ Rogers, Kirsch, and Stelman, note 62 at 11-13.

- (2) If significant information is gathered during the PA, then the EPA may decide to conduct more studies, called a Site Investigation (SI);
- (3) Data recovered from the SI is used by the EPA to rank the site via a mathematical model known as the Hazard Ranking System (HRS);
- (4) If the site scores above a threshold number on the HRS, the EPA proposes that the site be added to its National Priority List (NPL);
- (5) Either before or shortly after listing a site on the NPL, EPA may send a notice letter advising the PRP of the EPA's determination that the addressee is a PRP and a more thorough study, called a Remedial Investigation/Feasibility Study (RI/FS), is conducted at the site. If the PRPs decide not to participate in the RI/FS, EPA will perform the RI/FS and hold the PRP liable for its costs, or EPA will issue an administrative order requiring a PRP to undertake the study;
- (6) After the RI/FS is completed, EPA must decide among the remedial alternatives outlined in the RI/FS. The result of the decision is reflected in a detailed Record of Decision (ROD) prepared by EPA;
- (7) Once EPA has decided, it may present the PRPs with the opportunity to perform the remedial work; and
- (8) Finally, either the EPA or PRPs proceeds with the cleanup. If the EPA performs the cleanup, it will attempt to recover its costs from the PRPs through CERCLA's liability provisions. Private cleanup with private cost recovery actions are typically much more streamlined and less costly.

Brownfields Amendment⁶⁸

A commonly accepted definition of "brownfields" is "abandoned, idle or underutilised industrial and commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination".⁶⁹ Due to this complicated status, owners of brownfields do not want to sell them and risk attracting regulatory attention, and developers do not want to buy brownfields and risk substantial environmental liabilities.⁷⁰ All of their concerns add up to a recipe for stagnation, persistence of contamination, and urban decay.⁷¹ As developers turn away from brownfields and toward undeveloped "greenfields" distant from former

⁶⁸ See generally memorandum from George C.D. Duke to Class of Environmental Commercial Transactions, Pace University, US (31 January 2002) (on file with Professor N.A. Robinson).

⁶⁹ Office of Solid Waste, EPA, Pub. No. 92300-30 *The Brownfields Economic Redevelopment Initiative: Application Guidelines for Demonstration Pilot I* (1995).

⁷⁰ D. Evan van Hook "Area-wide Brownfields Planning, Remediation and Development" (2000) 11 *Fordham Environmental Law Journal* 743, 744.

⁷¹ *Ibid.*

industrialized areas, they take with them jobs and economic development, leaving brownfields-impacted areas further distressed.⁷²

In early 2002, the US Congress passed and enacted the Small Business Liability Relief and Brownfields Revitalization Act (the Act).⁷³ The aim of the Act is to provide certain relief for small businesses from liability under CERCLA, to promote the cleanup and reuse of brownfields, and to provide financial assistance for brownfields revitalisation. The Act amends CERCLA to give liability relief and financial assistance to small businesses and municipalities.⁷⁴ It encourages brownfields redevelopment by offering liability relief for prospective purchasers⁷⁵ and by addressing liability relief for contiguous property owners.⁷⁶ In addition, the Act restricts the enforcement reach of the EPA over sites cleaned up in compliance with State brownfields programs.⁷⁷ This provides strong incentive to PRPs working with State authorities and assures total liability release under CERCLA.

Japanese Legislation in Comparison to CERCLA and its Brownfields Amendment

Given the considerable differences between the Japanese and US legal systems, simple comparisons between the Japanese RSCL and CERCLA are not possible. Nonetheless it is worthwhile highlighting important issues in the RSCL by reference to CERCLA and US administrative and legal experience, which has accumulated over more than two decades. This section also examines how the RSCL could be enhanced so as to respond more effectively to increasing urban soil contamination in Japan.

Parties Liable

As mentioned in the preceding section, CERCLA §107 establishes who will be held liable. The scope of persons covered is extremely broad, including a transporter and a person who arranges transportation, disposal or treatment, as well as former owners and operators.⁷⁸

⁷² Ibid.

⁷³ Pub. L. No. 107-118, 115 Stat. 2356 (2002).

⁷⁴ §102 of the Act provides various exemptions especially applicable to small business entities, thereby streamlining standards of liability. §211 of the Act generally deals with brownfields revitalisation funding and sets out procedures for municipalities to obtain necessary funding to revitalise their brownfields.

⁷⁵ §222 of the Act offers protection to certain categories of bona fide purchasers of brownfields. Such purchasers would not be liable for cleanup of the brownfields site.

⁷⁶ §221(g)(1)(A) and §223 of the Act give liability relief to contiguous property owners. If the neighbouring contaminated site eventually causes their property to be contaminated they are not liable.

⁷⁷ Small Business Liability Relief and Brownfields Revitalization Act, §231(b)(1), 115 Stat. 2356 (2002)

⁷⁸ See note 64.

The scope of the Japanese RSCL, in contrast, is narrower. The RSCL provides that a party is subject to an order from a prefectural governor to conduct a soil inspection on its premises if the person is the owner or operator of a specified facility where specified harmful substances were manufactured, used or disposed of.⁷⁹ The RSCL also provides, as an alternative means of bringing persons within its scope, that when the governor considers that a property may be contaminated with specified harmful substances such that it may pose harm to human health, the governor can order the owner or operator of the property to conduct a soil inspection and report the results.⁸⁰

In contrast with CERCLA, the RSCL is only applicable to the owner or operator of these specified facilities or properties exceeding EQSs. In short, a person is held accountable under the RSCL in three situations. First, if soil contamination on the premises of such facilities or properties are attributable to its owner or operator, the owner or operator are liable for cleanup. Secondly, if the owner or operator were not the polluters, then those who caused the soil contamination are subject to cleanup orders from the governors. Thirdly, if an innocent landowner or operator is unable to find a polluter, they are required to eliminate soil contamination at their own cost, but are entitled to indemnification from the polluter if the polluter is later found.⁸¹ The RSCL is inapplicable to the situation where a residential home or apartments have already been constructed on a site on which a chemical factory used to operate, discharging specified harmful substances. The RSCL has no retrospective applicability, thus there is no liability against the owner or operator of a specific facility where specified harmful substances were manufactured, used or disposed of, but such facility ceased to operate prior to enactment of the law.⁸² Similarly, although there seems to be no clear statutory exclusion, the RSCL does not hold financial institutions liable if they merely loan money to liable parties.⁸³ However, one official of MOE has taken the view that if financial institutions acquire contaminated properties as a result of foreclosure, such institutions might be held liable for cleaning up the property.⁸⁴

79 RSCL Art. 3, No. 1.

80 RSCL Art. 4, No. 1.

81 Telephone interview with Mr. Shimizu, an official at Bureau of Soil Environment, MOE, in Tokyo (25 March 2002).

82 RSCL Art. 3, Annex.

83 Telephone Interview, note 81.

84 *Bill for Remediation of Soil Contamination: Hearings Before the Committee on Environment, 154th Diet (2002)* (statement of Tetsuya Nishio, Director of Environmental Management Bureau, MOE). In the same statement, he also states that some allowance must be made for financial institutions which, upon foreclosure, merely become temporary property owners and intend to resell property immediately.

A striking contrast with CERCLA is that the RSCL does not deal with harm to the environment, but only apply to harm to human health. Such narrow applicability will significantly diminish the scope of liability under the RSCB and consequently restrict its effectiveness.

In short, under the current version of the RSCL, vast categories of persons may be exempt from liability.

Ambiguous Definitions and Inadequate Statutory Provisions

In spite of some criticism, CERCLA §101, 42 USC §9601 appears to thoroughly define the terms used in the statute. The definition of hazardous substance in CERCLA refers to hazardous substances under RCRA, the Clean Air Act, the Clean Water Act and TSCA.⁸⁵ Similarly, the term “owner” or “operator” is defined extensively under CERCLA §101(20), 42 USC §9601(20).

Partly because of a significantly deferential legal culture, the Japanese RSCB only loosely defines its terms, or simply does not give any meaning to them at all.⁸⁶ For example, soil is not defined in the RSCL.⁸⁷ Likewise there is no definition of what constitutes “modification of land use” in controlled areas under Article 9 of the RSCL.⁸⁸ Only definitions of specified harmful substances and soil inspection are provided in the definition section in Article 2 of the RSCL. Other interpretations of the terms seem to lie in the discretion of the MOE.

For practical reasons, such as expertise and efficient administration of the statute, CERCLA delegates authority to the EPA to promulgate standards and guidelines. The Japanese RSCL delegates too much authority to the MOE, and does so without giving adequate directions. This is one of the main reasons for the ambiguity in the RSCL.⁸⁹ The RSCL authorises the MOE to promulgate numerous standards, guidelines or regulations by Ministry Ordinance. However, the Ministry Ordinance need not be reviewed by either members of the National Diet or the public. This contrasts with the duty of the US EPA to publish proposed regulations in the Federal Register and to hear public comments on the regulation. In Japan the Ministry Ordinance is not subject to publication and public comments.⁹⁰ This gives the MOE a free hand to promulgate any regulation. The standards or procedures that must be

⁸⁵ CERCLA §101(14), 42 USC §9601(14) (2000).

⁸⁶ Lack of definition is not limited to the RSCL. Numerous Japanese laws do not specify the meaning of terms or do not define them in the statute. Therefore people often need to ask legislatures or bureaucrats to ascertain the meaning of terms.

⁸⁷ Yoshikazu Suzuki, *Viewpoint*, Asahi Shimbun, 25 March 2002 at 13.

⁸⁸ MOE explains that modification of land use includes any movement of soil such as shoveling, dredging or bulldozing of soil in controlled areas, or redeveloping such areas: Telephone Interview, note 81. However, this is just one interpretation given by an official of MOE and even then does not give a clear definition.

⁸⁹ Suzuki, note 87.

set by Ministry Ordinance of the MOE include procedures and engineering standards for soil inspections under Articles 3 and 4; designation of controlled areas under Article 5; creation of the registry listing controlled areas under article 7.4; certification of soil inspectors under article 10; and so on.

It is of concern that the RSCL confers such broad, unaccountable discretion upon the MOE. This carries the danger that the purpose of the RSCL could be defeated by setting lenient standards of soil inspections and cleanup.⁹¹

Recoverable Response Costs

CERCLA provides for recovery of “cost of removal or remedial action” incurred by the US or a State, or “necessary costs of response” incurred by any other person.⁹² CERCLA also addresses in detail issues relating to indemnification or contribution towards costs incurred.⁹³

The Japanese RSCL, in contrast, merely indicates that if the owner or operator of contaminated property performs cleanup activity, but is not the polluter, the owner or operator is entitled to recover the cleanup costs from responsible parties, if there are any.⁹⁴

Given that numerous legal disputes have arisen in the US over interpretation of indemnification and contribution, or allocation of liability, it is surprising that the RSCL fails to elaborate the circumstances in which a person is entitled to indemnification or contribution. The RSCL fails to anticipate a variety of circumstances and fails to provide useful guidance. It is likely the RSCL will cause confusion and disputes over recovery of response costs.

Standard of Liability

CERCLA imposes both strict liability and joint and several liability.⁹⁵ In contrast, the Japanese RSCL only imposes strict liability in certain circumstances. As indicated previously, the RSCL provides that if there is a responsible party (polluter), that party has to conduct a soil inspection and is liable for subsequent costs including cleanup costs.⁹⁶ The polluter must indemnify a non-responsible party for response costs if the

90 In contrast, to issue any Cabinet Order, the Order needs to be discussed and passed in the Diet. There is an opportunity for third parties to examine the substance of the Cabinet Order.

91 Interview with Aki Nagao, Ph.D *Japan Initiative*, in Tokyo (27 March 2002).

92 See note 66.

93 CERCLA §107 and §113, 42 USC §9607 and §9613 (2000).

94 Telephone Interview, note 81 Art. 8, No. 1.

95 CERCLA §107, 42 USC §9607 (2000).

96 RSCL Art. 3, No. 1, Art. 4, No. 1, and Art. 7, No. 1.

non-responsible party engages in soil inspection or cleanup.⁹⁷ On the other hand, if there is no identifiable responsible party, the owner or operator of contaminated property is compelled to take any necessary action to clean up the property regardless of their innocence.⁹⁸ This strict liability is based on the notion that since the owner or operator has exclusive dominion or control over the property, they must bear ultimate responsibility.

Defence to Liability

CERCLA §107(b), 42 USC §9607(b) allows a narrow range of defences: an act of god, an act of war, and an act or omission of a third party. One of the most significant limitations of the third party defence is that the defendant must have no “contractual relationship, existing directly or indirectly” with the party whose conduct allegedly was the “sole cause” of the release or threat of release. This contractual relationship can include real estate transactions.

The Japanese RSCL, interestingly, does not provide such a defence to liability. Although lack of an express defence is common to other Japanese environmental laws, the uncertainty in the RSCL will place a significant burden of proof on landowners seeking to prove their innocence. Its absence will impose an unfair burden on the current landowner, as it is the current landowner who is ultimately liable for cleanup costs even if the landowner is not the polluter.⁹⁹

Relief from Liability for Small Businesses

Growing public awareness of environmental issues certainly changes corporate practices. Corporations used to hide adverse environmental information from the public. In many cases they legitimised environmental pollution and rarely admitted their liability. But that is the past. Responding to public concern about environmental protection, corporations are disclosing environmental information by publishing annual environmental reports. They have realised that active disclosure and voluntary compliance with environmental standards gives them a positive “green” image. Numerous large Japanese corporations, with sufficient financial and human resources, now undertake voluntary cleanup of their contaminated lands.

The story is significantly different when it comes to small business entities. Without sufficient resources, most small businesses are unable to perform cleanup and fear excessive liability.

⁹⁷ RSCL Art. 8, No. 1.

⁹⁸ RSCL Art. 7, No. 1.

⁹⁹ Ibid.

Recent enactment in the US of the Small Business Liability Relief and Brownfields Revitalization Act,¹⁰⁰ which amends CERCLA, gives liability relief to small businesses by exempting certain classes from liability. Prior to the Act, the EPA had operated a comprehensive Federal brownfields program. The program encouraged acceleration of Brownfields cleanup by providing financial incentives for brownfields pilot projects.¹⁰¹

With regard to liability relief for small businesses, the Japanese RSCL simply indicates that the Japanese government shall give special consideration to small and medium size businesses in undertaking soil inspection or cleanup of controlled areas.¹⁰² It is difficult to discern what this provision means. One official source of information reveals that this special consideration mainly has to do with special tax breaks for small businesses, such as tax deductions for soil inspection or cleanup.¹⁰³

The RSCL created a Fund with an annual budget of Japanese ¥500 million for 10 years, beginning in the fiscal year 2002.¹⁰⁴ This Fund is to be used mainly to assist the owner or operator of contaminated property when they are unable to identify any responsible Parties and do not have sufficient financial resources to undertake cleanup.¹⁰⁵ In addition to the ¥500 million subsidy from the Japanese government, it is intended that part of the Fund will be made up of voluntary donations from various industries.¹⁰⁶ It is to be expected that very few industries will be willing to make donations to the Fund, especially in the current economic recession.¹⁰⁷

Public Participation

CERCLA provides an opportunity for public involvement in selecting cleanup processes.¹⁰⁸ Citizen suit provisions under CERCLA §310, 42 USC §9659 enable concerned members of the public to bring a lawsuit without waiting for initial action by the EPA or State authorities. CERCLA seemingly integrates public participation as indispensable in assuring its transparency and effectiveness.

100 Pub. L. No. 107-118, 115 Stat. 2356 (2002).

101 EPA, *The Brownfields Economic Redevelopment Initiatives Proposed Guidelines for Brownfields Assessment Demonstration Pilots* <www.epa.gov/swerosps/bf/html/doc/apguide.htm> (28 March 2002).

102 RSCL Art. 33, No. 2.

103 Research Office on Environment, House of Representative, National Diet of Japan, *Reference Guide of Bill for Remediation of Soil Contamination for the Committee of the Environment* (2002) 19.

104 RSCL Art. 22. See Research Office on Environment, note 103 at 16.

105 Research Office on Environment, note 103 at 16.

106 Ibid.

107 It is no wonder that the Japan Economic Federation, comprised of big corporations, has expressed its strong objection to soliciting voluntary donations: Tadayoshi Sakaguchi, *Yomiuri Shimbun*, 25 February 2002 at 15.

108 CERCLA §117, 42 USC §9617 (2000).

Unfortunately, the Japanese RSCL does not place much emphasis on public participation. For instance, there is no provision authorising public commencement of action where it is feared that a specified harmful substance may pose harm to human health. Only prefectural governors can issue an order to the owner or operator of the property.¹⁰⁹ It is conceivable that the public can call for the governor to commence necessary action in respect of soil contamination. However, it is up to the governor whether to initiate the action or not.

Not surprisingly, the RSCL does not provide for citizen suits. No Japanese environmental law currently furnishes the public with the right to bring a citizen suit.

With regard to public access to information about the existence of contaminated property in their neighbourhood, the prefectural governor may be requested by members of the public to provide access to the Registry listing controlled areas and the RSCL stipulates that the governor cannot refuse public access without a legitimate reason.¹¹⁰ The MOE explains that a “legitimate reason” would be when the Registry is under revision or correction.¹¹¹ Concerned that the governor may withhold the Registry from public access by asserting ambiguous “legitimate” reasons, several commentators have suggested deletion of this qualification on public access from the RSCL.¹¹²

Compensation for Harm

Regarding resolution of health claims arising out of exposure to hazards from contaminated sites, CERCLA relies mainly on legal dispute resolution. Adversely affected parties bring lawsuits to recover medical expenses and other damages.

In Japan, the Pollution-related Health Damage Compensation Law¹¹³ was enacted in 1973 in response to a skyrocketing number of health damage claims caused by Minamata or Itai-itai disease during the 1960s–1970s. Recognising significant air and water pollution over substantial areas generated by business activities, the aim of the law is to ensure prompt and fair health security for sufferers by providing them with compensation.¹¹⁴ The law applies to damage caused by certain recognised air and water pollution illnesses (currently Minamata mercury disease, Itai-itai cadmium disease and arsenic poisoning) and compensates those who are classified, based on their residency in designated areas and whose illness is

109 RSCL Art. 4, No. 1.

110 RSCL Art. 6, No. 3.

111 Research Office on Environment, note 103 at 12.

112 Suzuki, note 87, and Nagao, note 91.

113 Kogai Kenko Higaitono Hoshoni kansuru Horitsu (Pollution-related Health Damage Compensation Law) Law No. 111 of 1973.

114 *Ibid.*, Art. 1.

certified by the government as being attributable to the pollution. Upon official certification, the pollution victims are eligible for reimbursement for medical expenses and welfare benefits.¹¹⁵ However, the government has set a relatively high standard of certification, thus pollution victims must show a high degree of correlation between their health symptoms and pollution recognised under the law.

The RSCL is silent as to whether the Pollution-related Health Damage Compensation Law will be applicable to health claims arising from urban soil contamination. Nonetheless adoption of the RSCL certainly opens the floodgate of potential health damage claims and the government will be compelled to come up with a health dispute resolution scheme sooner or later.

Evaluation of How the New Legislation will Change Land Use Practice in Japan

A Business Perspective

The RSCL will undoubtedly create lucrative opportunities for environmental business. Concerned about possible liability or damage to public relations, more and more corporations that own chemical or electroplating factories will look for soil consulting firms to resolve any potential problem at an early stage. Local governments also seek advice from environmental firms or ask them to conduct soil inspections of suspected governmental property so as to protect public health. Many corporations, including large construction companies as well as environmental consulting firms, launched comprehensive soil contamination prevention programs even before the bill was introduced into the Diet.

One of the largest construction companies, Shimizu Construction Corporation, entered into a licence agreement regarding new remediation technology with a Dutch company.¹¹⁶ With the new technology, Shimizu Corporation expects to lower the costs of soil inspection and cleanup by 30 percent. It has also set up a soil environmental division solely working on soil cleanup business.¹¹⁷

Eco-tech Corporation has so far made more than 650 contracts, mainly with chemical and electroplating factories as to VOCs and heavy metal cleanup, and undertaken remediation work on the premises of those factories.

115 Kawashima, note 6 at 259.

116 Satoshi Takano *Flourishing Soil Remediation Business* Mainichi Shimbun, 11 March 2002 at 22

117 *Ibid.*

Kurita Water Industries established Japan's first company specialising in reducing the risk of soil contamination in commercial transactions.¹¹⁸ The new company is called Land Solution Inc (LS). In anticipation of the creation of a new market, LS offers integrated products and services to reduce the risk of soil contamination in commercial transaction settings. The main business activities of LS are: (1) maintenance and operation of soil contamination evaluation systems; (2) soil contamination inspection and construction work related to soil remediation (selection and supervision of contractors with regard to pricing and methods); and (3) marketing of liability insurance for soil contamination and introduction of viable sales/purchase schemes for land with soil contamination risk. In particular LS is considering real estate transactions whereby LS purchases contaminated property at a lower price and after thorough cleanup sells it at increased market value.¹¹⁹

The market for soil-related business is currently estimated at Japanese ¥50 billion.¹²⁰ The Geo-Environmental Protection Center estimates that the potential market value for such businesses could be as high as Japanese ¥1.3 trillion, if all of the 930,000 factories in Japan took some cleanup action.¹²¹

Financial institutions also consider that soil-related business offers valuable opportunities, which could create new prosperous markets substituting for conventional financial services. For example, a number of large banking, insurance, and security companies were involved in establishing Land Solution Inc, discussed previously. They will offer advice and assistance to clients on how to transfer their contaminated properties smoothly and how to cope with decreases in corporate assets.¹²² One of the largest banks in Japan, UFJ Bank, a subsidiary of UFJ Holding Inc, introduced new financial services in April 2002 which provide feasible sales schemes for soil contaminated properties for its clients. In addition the bank announced that it would loan necessary finance to such clients, or acting as a real estate broker, embark on matchmaking sellers and purchasers of such properties.¹²³

Thus, the RSCL will accelerate the development of new financial services and products such as marketing of liability insurance for soil contamination,¹²⁴ or securitisation of contaminated property.¹²⁵ With full disclosure of accurate levels of

118 See Kurita Water Industries, Press Release < www.kurita.co.jp/english/news/press010713.html > (16 March 2002).

119 Takano, note 117.

120 Ibid.

121 Ibid.

122 Kurita Water Industries, note 119.

123 Nihon Keizai Shimbun, 28 March 2002 at 7.

124 Due to expensive insurance premiums and cumbersome procedures, only two environmental impairment liability insurance policies in Japan as of 1996. See Hiromi Yokota "Pollution Liability Insurance" in *Environmental and Finance* (Yoshihiro Nomura ed, 1997) at 180.

125 Hideki Kato, Yomiuri Shimbun, 13 March 2002 at 12.

contamination, real estate developers and purchasers will be able to assess appropriate market values for contaminated property. This will lead to vitalisation of contaminated land transactions without hidden adverse information about the land.¹²⁶

The downside of the RSCL is that full disclosure of negative information will significantly depreciate market values for contaminated property and thereby worsen the corporate balance sheet. Collateral financial institutions may be unable to collect their loans due to decreases in property values, adding further to their non-performing loans. Discovery of contaminated property in urban areas may stimulate industry flight to suburban non-contaminated greenfields.¹²⁷

Ambiguities in the RSCL such as unclear standards of liability may give rise to confusion and substantial litigation. Although this might create opportunities for attorneys, such litigation fees are a negative cost in the society as a whole.

An Individual Perspective

Because individual property owners are subject to soil inspection and cleanup orders from prefectural governors, they may need to obtain environmental liability insurance to mitigate potential liability. A future trend will certainly be that individual purchasers or sellers of property conduct environmental audits as done in the United States to avoid liability. Exercising environmental due diligence is not common among individuals in Japan. In future, when people decide to purchase or lease property, it is likely that they will pay great attention to the history of the property as well as the usual economic factors. The RSCL is likely to change behaviour in real estate transactions, away from purely economic concerns towards concerns about environmental liability.

A concern is that on finding adversely impacted property in their vicinity, people with financial capability will turn away from such areas to clean locations, as has happened in brownfields areas in the United States. This may further distress the impacted area, and create urban decay.

¹²⁶ Ibid.

¹²⁷ See van Hook, note 70 at 744.

Conclusion

Environmental legislation is often regarded as having little direct effect on everyday economic activities and public awareness of environmental legislation is generally low in Japan. The RSCL, however, has the potential to enormously impact on daily life as well as the economic activities of corporations. For the first time, there are mandatory statutory requirements for soil inspection and standards of liability and cleanup procedures.

The success or failure of the RSCL remains to be seen. In the two months since the law took effect, there have been few disputes arising out of the interpretation or operation of the RSCL, despite lack of clear rules and elaborate guidelines. One may argue that unlike the US which has more than two decades of experience with CERCLA, Japan cannot be expected to come up with an effectively functioning model from the start.¹²⁸ While this is true, it is also arguable that the RSCL should better articulate definitions, and further elaborate liability and cost recovery mechanisms in order to lessen unnecessary disputes.

Undoubtedly Japan needs a law specifically targeting the issue of urban soil contamination. However, it is doubtful whether the RSCL provides a comprehensive scheme for environmental protection. It deals with cleaning up existing contamination. Effective laws and strategies for preventing the occurrence of soil contamination are needed.

The RSCL has the potential to hugely impact on commercial transactions in Japan, as CERCLA did in the US, in both a positive and negative way. New environmental markets for contaminated land are being created. Many financial institutions and engineering companies have already developed business strategies to give them a share of this lucrative soil-related market.

Greater public awareness of the RSCL and an understanding of its potential impact on commercial transactions is needed. Constant vigil on the performance of the RSCL will make it a valuable instrument for environmental protection and the quality of human life.

128 Interview with Hideaki Yoshizawa, Senior researcher of Research Office on Environment, House of Representative, National Diet of Japan, in Tokyo, 28 March 2002.