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Indonesian Scientific Meeting 2005

PROCEEDING

Graduate School of International Development (GSID),
Nagoya University
Nagoya - Japan
September 3, 2005



PPI JEPANG

*Membuka Dunia Untuk Indonesia
dan
Membuka Indonesia Untuk Dunia*

Indonesian Student Association in Japan (ISA – Japan)
Nagoya University

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Assalamu'alaikum wr wb.

Yth. Bapak Duta Besar Indonesia di Jepang

Yth. Ibu Dekan GSID Nagoya University

Yth. Para Undangan

serta rekan-rekan peserta Kongres dan Temu Ilmiah PPI Jepang 2005 di Nagoya

Selamat datang di Nagoya University!

Kami atas nama panitia bersyukur atas rahmat dan karunia Allah SWT sehingga event besar ini dapat terlaksana pada hari ini. Kami menyampaikan penghargaan yang setinggi-tingginya atas bantuan dan kerjasama pihak KBRI serta pihak GSID selaku tuan rumah sehingga acara ini dapat terealisasi dengan baik.

Kami dari panitia menyaksikan antusiasme yang begitu besar dari rekan-rekan pelajar Indonesia di Jepang untuk berpartisipasi dalam event Temu Ilmiah 2005 ini. Tercatat tak kurang dari 150 karya ilmiah akan dipresentasikan hari ini oleh rekan-rekan yang datang dari berbagai daerah di Jepang, mulai dari Hokkaido hingga Kyushu. Semoga jumlah yang besar ini menunjukkan bergairahnya iklim research dan tingginya semangat untuk menuntut ilmu di antara kita. Tentunya harapan kita semua, apa-apa yang kita capai di sini dapat berguna dan diimplementasikan bagi kebaikan bangsa dan negara kita.

Atas nama panitia, kami mengucapkan terima kasih yang sebesar-besarnya kepada para donatur acara ini, kepada Garuda Indonesia sebagai sponsor kami, dan semua pihak atas segala bantuan yang telah diberikan. Sebagai ketua pelaksana Kongres dan Temu Ilmiah 2005 ini, saya juga ingin memberikan apresiasi setinggi-tingginya atas kerja keras dan kerjasama rekan-rekan panitia serta para editor dan reviewer sehingga acara ini dapat kita laksanakan sesuai dengan yang kita harapkan.

Akhir kata, kami memohon maaf atas segala kekurangan dan semoga Kongres dan Temu Ilmiah ini dapat berjalan dengan baik dan lancar.

Wassalamu'alaikum wr. wb.

Sandro Miharadi

Ketua Panitia KTI 2005

Illegal Dumping of Industrial Waste in Japan

Azhar

Faculty of Law, Sriwijaya University and JSPS Fellow Graduate School of Law Hokkaido University,
Kitaku Kita 15 Jo Nishi 2 Chome Pal House 303, Sapporo 001-0015

E-mail: azhar_2000@yahoo.com

Abstract. *Illegal dumping is one of the biggest major social problems that raise significant concerns with regard to safety, property values, and quality of life in Japanese communities. This paper begins with the general overview of illegal dumping of industrial waste in Japan by surveying the definition of waste and illegal dumping. The second part presents state of illegal dumping and some of the largest scale of illegal dumping cases in Japan. More over, we overview the development of environmental law concerning toward illegal dumping. The finding shows an indication that the number of illegal dumping has increased. The survey through prefecture governments and municipalities with public health center, in order to grasp the cases of industrial waste treated not complying with the standards for treatment of industrial waste or specially controlled industrial waste, which are stipulated in the Waste Management and Public Cleansing Law. Experience elsewhere also suggest that the survey done will under estimate the extent of the illegal dumping problem: the illegal dumping sites discovered, it will require urgent attention; and that cleaning up the illegal dumping sites will be very expensive, roughly twenty times the cost per unit of treating waste.*

Keywords. environmental law, illegal dumping, industrial waste,

1 Introduction

Illegal dumping is one of the biggest major social problems that raise significant concerns with regard to safety, property values, and quality of life in Japanese communities. In addition, it is a major economic burden on local government, which is typically responsible for cleaning up dump sites.

Many of the illegal dumping sites remain present danger to the environment and to the people. There are many illegal dumping sites from the Northern part to the Southern part of Japan.

There are three of the very famous and well known cases of illegal dumping of massive amount of waste in Japan: The three involve at the Teshima Island in the Seto Inland Sea, Kagawa Prefecture, at Tsubakibora district, Gifu prefecture, another at the area along the border of Aomori and Iwate Prefecture.

The overall goal of this study is to examine the root of the problems and value of national law enforcement, local efforts to prevent and mitigate illegal dumping in Japan.

2 Definition of Waste and Illegal Dumping

2.1 Definition of Waste

General waste is the household garbage and night soil/domestic waste water. The household garbage consists of ordinary garbage and bulky wastes. The ordinary garbage separated into four types of wastes. The first type is recycle and reusable materials such as glass, metals, pet bottles and paper. The second type is hazardous materials such as batteries, tires, refrigerator, television, gas tank and other items containing mercury or cadmium. Third, landfill wastes are non-recyclable, non-hazardous wastes that are also non-combustible, such as broken ceramic items: construction debris, plastic, small electric appliance and rubber. Fourth, incinerated

wastes are non-recyclable, non-hazardous, combustible wastes such as soiled paper, kitchen waste, filmy plastics of mixed resin and unusable wood (Herkowitz, A. and U, Salerni, 1987). Industrial wastes comprise 19 categories of waste as defined below (see the Chart 1).

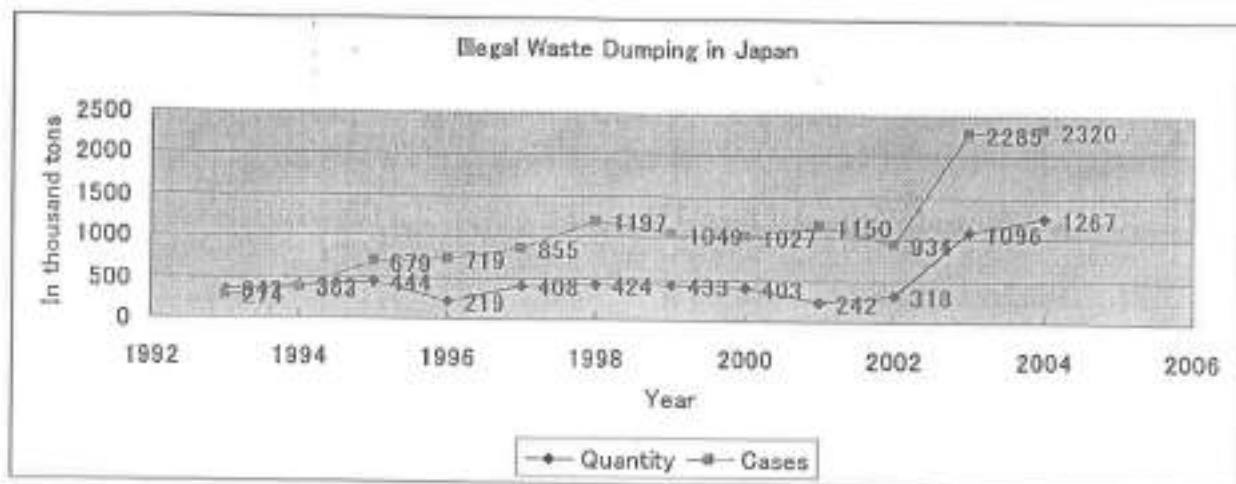
2.2 Definition of Illegal Dumping

If we compare to other country such America, definition of illegal dumping is depend on each state and city, for example the Phoenix City describes that Illegal Dumping is the disposal of waste generated at one location and disposed of at another location without legal permission. Illegal Dumping is the disposal of trash, tires, yard waste, appliances and other waste materials, disposed of without the permission of the property owner and/or the City of Phoenix, in violation of the Phoenix City Code Chapter 27 Section 7. It is also known as "open dumping", "fly by dumping" and "midnight dumping". Materials commonly illegally dumped include: yard wastes; furniture and appliances; auto wastes (tires, oil, antifreeze and parts); and concrete.

In Japan the definition of illegal dumping is the same in the whole country that the industrial waste treated not complying with the standard for treatment of industrial waste or specially controlled industrial waste (WML, 2001).

3 The Present State of Illegal Dumping

According to the survey through prefecture governments and municipalities with public health center, in order to grasp the cases of industrial waste treated not complying with the standards for treatment of industrial waste or specially controlled industrial waste, which are stipulated in the Waste Management and Public Cleansing Law or cases of illegal dumping (WML, 2001). The unsolved illegal dumping cases of April 1, 2004 were 2,505. The cases in which residual quantity of untreated was waste confirmed were 2285 and the total residual quantity was 10.96 million tons. Moreover the unsolved illegal dumping cases as of December 28, 2004, were 2,320 and the total residual quantity 12.67 million tons. If we compare to the total number of illegal waste dumping, the increase is very significant in the last three years. For example in 2002 the total number of illegal waste dumping in Japan is 318,000 tons in volume and 234 cases, followed by 1,096,000 tons in volume, and 880 cases in 2003. In 2004, the total number of illegal waste dumping is 1,267,000 tons in volume and 2,320 cases (Figure 1).



Source: Minister of the Environment of Japan

Figure 1. Illegal Waste Dumping in Japan

Chart. 1.

Type of Industrial Waste	Type of Industrial Waste under Special Control	
1.Cinder	Waste oil	
2.Sludge	Waste acid	
3.Waste oil	Waste alkali	
4.Waste acid	Infectious industrial waste	
5. Waste alkali	Specific Hazardous Industrial Waste	Waste PCBs
6. Waste plastics		PCB contaminated material
7. Rubber waste		Asbestos waste
8. Metal waste		Designated sewage sludge
9. Glass and ceramic waste		Slag, soot, cinder
10. Slag		Sludge, waste acid, waste alkali
11.Waste construction material (Pieces of concrete and other similar waste resulting from demolition of buildings and other structures)		Waste oil (Waste oil solution)
12.Soot (Soot gathered in the soot-collecting equipment at facilities designated in the Air Pollution Control Law as soot-producing facilities as well as at facilities that incinerate sludge, waste oil, and waste plastics)		
13.Paper waste (Paper waste from the pulp, paper, paper-processing, and paper-manufacturing industries; paper waste from the newspaper industry (including all printed matter published on newsprint); paper waste from the bookbinding industry and publications-processing industry; other paper waste dasted with PCB)		15.Textile waste (Textile waste from the textile industry (excluding the clothing and other textile products-manufacturing industries))
14.Wood waste (Wood waste from lumber-manufacturing and wood products-manufacturing industry (including the furniture-manufacturing industry); wood waste from the construction industry (only wood waste from the demolition of buildings and other structures)		16.Plant and animal matter (Solid matter from plants and animals used as raw materials in the food-manufacturing, medical goods-manufacturing, and perfume-manufacturing industries.)
	17.Animal excrement (Animal excrement from livestock and agricultural industries)	
	18.Animal corpses (Animal corpses from the livestock and agricultural industries)	
	19.Waste that results from disposal of the Above mentioned industrial waste and Does not fall under the above categories	

The data is not include the newest findings of illegal waste dumping uncovered on March 2004 in Tsubakibora, Gifu prefecture which is estimated about 700,000 cubic meters. In the following, we will discuss three biggest illegal dumping cases in Japan.

3.1 Teshima Case

The illegal dumping of a massive amount of waste at Teshima Island in the Seto Island Sea raised the issue of accountability. Who should be held responsible for the illegal dumping? Who should bear the cost of cleaning up? According to the investigation by the Environmental Dispute Coordination Commission which discovered that the waste dump illegally in Teshima Island contained hazardous materials, such as lead, polychlorinated biphenyls (PCBs), and dioxins (PCDDs/DFs). The area of waste covered 460,000 cubic meters and 87% of this area fall outside the limit established for the permitted dumping of hazardous waste. At the same time, not only PCBs, but dioxin was also found in the ground water in quantities exceeding legally permitted levels. Although no obvious traces of pollution in the subsoil or in creatures living on the sea bed have been detected, there can be no doubt that hazardous waste matter will have been leaking through the flow of ground water into the sea (Hanashima, M, *et al.*, 1996).

The point at this issue is the responsibility of the three bodies whose can be held accountable: the producer/generators of the waste, the waste disposal company, and the local government. For example, in this case the government of Kagawa Prefecture.

3.2 Aomori/Iwate Case

In December, 2000, the Police of Aomori and Iwate Prefecture found out industrial waste was illegally dumped over a period of 10 years (1990-1999) in a region that spans both Aomori and Iwate Prefectures. The waste includes cinders, sludge, discarded oil and plastic container. Most of the 820.000 cubic meters of illegal dumping is equivalent to two thirds the capacity of Tokyo Dome which is originated in Tokyo and its neighboring prefectures hundreds of kilometers away (Shimizu Kaho, 2003). The Aomori and Iwate cases are considered the largest case of industrial waste dumping ever in Japan until the year 2000. The illegal disposal of industrial waste was done by San-ei Chemicals in Aomori prefecture and Ken-nan Eisei in Saitama prefecture on the private land owned by an executive of San-ei Chemicals. Both these companies have since gone bankrupt and Aomori and Iwate prefectures will now have to remove the waste at their own expenses. Fortunately for them, Government of Japan will subsidize 1/3 of the clean-up expense. The number of companies which generated this industrial waste is estimated to be 11,000; more than 60 percent are headquartered in the Tokyo metropolitan area (Kenji Kobayashi, 2003). The total cost for removal of the disposed industrial waste is estimated to be in the hundreds of millions of dollars.

3.3 Gifu Case

The Gifu Mayor ordered on Friday, March 19, 2004 the launch of a major environmental study in the city after learning that a local contractor had allegedly turned part of the scenic Gifu Prefecture capital into Japan's largest illegal dumping site for industrial waste as much as 700,000 cubic meters (Mainichi Shinbun March 19, 2004).

Finally, the owner of an industrial waste disposal company and six other people were arrested on Monday, October 18, 2004 for illegal dumping a huge amount of industrial waste on the firm's premises here, prefecture police said. Masaharu Kikida, 62, owner of the Gifu-based Zensho, Miki Tameshige, 55, president of the company, and six others, including executives and business associates, are accused of violating the Industrial Waste Disposal Law (Mainichi Shinbun, October 18, 2004).

4 Development of Environmental Law toward Illegal Dumping

The original law, the Waste Disposal and Public Cleansing Law (hereinafter referred to as Waste Management Law) in Japan, was originally passed in 1970 and first amended 1971. In 1991, 1993, 1995, 1997, 1999, 2000 and 2001, this law was revised. Although the following items were submitted by the Ministry of Health and Welfare Living Environment Council as necessary feature of the revision, their aims have remained unrealized:

1. The producer/generator is responsible for waste that is difficult to dispose: afterward, such waste limited to four kinds;
2. The producer/generator must take responsibility if the waste is dumped illegally;
3. Resource recycling business should subsidized; and
4. The term of the law must in accordance with the Basel Convention, which set limits for the trans-boundary transfer and disposal of hazardous waste.

The more difficult it becomes to find and construct a landfill sites, the more urgent have become requests by the public that the Waste Management Law should be revised. In

September 1996, the Special Committee on Industrial Waste in the Living Environment set up by the Ministry of Health and Welfare published its report, *The Fundamental Direction of Countermeasures to Cope with Industrial Waste* (1996). The basic problem of industrial waste disposal, could be described caught in a "the wheel of illegal dumping" (Figure.2.). Although it was desperately urgent to create new final landfill sites, it was increasingly difficult to find them. The committee argued that within 2-3 years at most, all existing landfill sites throughout Japan would be full. Illegal dumping, of which there are as many as 2320 cases in 2004 (Figure.1.), aggravates the already severe state of present day environmental pollution, while local residents are distrustful of and hostile toward the construction of new landfill sites, even when these sites are authorized. During the past 10 years in Japan, more than 220 local disputes over the siting of disposal facilities have been registered officially. In October 1997, Professor Masami Taguchi of Risso University reported the results of his investigation into these cases and came up with the much greater number of 950 disputes (1998). In order to fulfill the ordinances to establish a landfill site, the local inhabitants have to agree but, owing their suspicion that the construction of the site will cause a deterioration of the environment, local residents have disputed the proposals (and generally rejected them), thus making it both more urgent and more difficult to construct final landfill sites. The prospect of further construction of sites remains unclear (Figure 2). The Bar Association of Kanto District, however, disputed the opinion that the cause of illegal dumping was shortage of illegal dumping sites. They insisted that these sites still has had considerable capacity for further occupation (1996). In their view, the situation where it is being dumped illegally in order to cut down on the cost of the "treatment fee." An investigation carried out by the National Policy Agency's Bureau for Safer Living (1977) claims that 65% of criminal instances of illegal dumping of industrial waste are motivated by the need to reduce costs (Bar Association of Kanto District, 1996). The problem argued is money: waste disposal enterprises seek to increase profits by reducing costs by applying the principle "savings in application of constant capital."

The report of the Ministry Committee suggested the following four measures to counter "the wheel of illegal dumping:"

1. Promotion of waste reduction and recycling;
2. Improvement of safety standards and a recovery of public trust in the legal treatment of industrial waste: by strengthening the standards, by permitting the creation of mini-landfill sites, and by the full public disclosure of all relevant information;
3. Enforcement of countermeasures against illegal dumping by strengthening the penal regulations and by enriching the existing system; and
4. The establishment of a system to provide the necessary funds to restore polluted land to its original condition, along the lines of the "superfund" for restoration purposes.

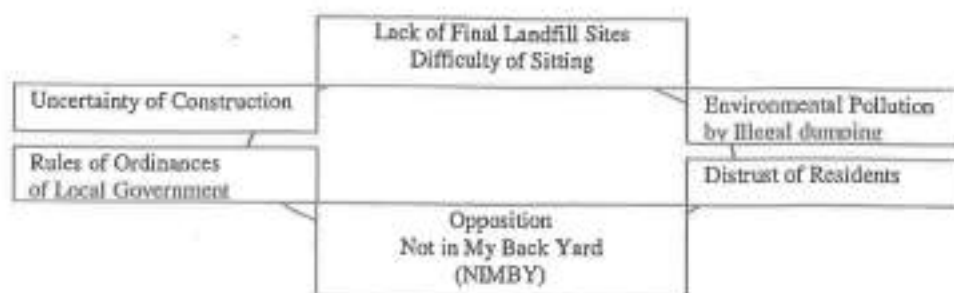


Figure 2. The Wheel of Illegal Dumping

The report and regulation, however, mute about the standard cost to be incurred by the producer/generator of the waste, the disposal business, or the local government.

Meanwhile, the Japanese Bar Association produced its own report on the revision of the Waste Management Law (Japan Bar Association, 1996). The report stated that the creation of final landfill sites was not itself sufficient to address the problem: it was necessarily to pursue the generators' responsibility as a factor in a society newly committed to the circulation of resources. It would also be necessary to establish a quantitative regulation to an intermediate facility, thus aiming to abolish a lower limit on landfill sites and, so, to establish a closed system for the proposal of hazardous wastes. The report also argued that the generator should be required to donate to a fund for restoration and compensation, and that where illegal dumping had occurred, the local government should have the authority to issue an order to restore sites to their original condition. It also insisted that no waste disposal facility should be sited anywhere near a headwater reservation area, that information about siting should be publicly disclosed, that local residents should have the right to operate a surveillance system to monitor the sites, and that the construction standards for final landfill sites should be reconsidered.

The Waste Management Law was further revised in 1997 until 2001. The revision included the following features:

1. Procedures for siting must be clarified through adoption of the Environmental Impact Assessment. The installer of the facility must carry out an investigation into the effect of the facility on its immediate environment, while the local governor must publish the results of the investigation and hold a hearing to consider the opinions of those affected, both government and stockholders, before permission can be given to construct a landfill site.
2. The management record of the disposal facility must be made public. The installer of the disposal facility has to also keep a record of the management and maintenance of the facility and, again, according to certain terms, must make this record public.
3. The appropriate operation and maintenance of the final landfill sites bear the cost of the operation and maintenance during the period of the landfill.
4. The penal regulations for the illegal dumping of industrial waste must be strengthened. A maximum fine of 100 million yen to be imposed on anyone adjudged guilty of illegal dumping.
5. Illegally dumped waste problem must be dealt out properly. The business world and the government must donate/create a fund to cover the expense for the disposal of an unknown dumper's industrial waste.
6. The generator should responsible for their waste which is dumped illegally.

However, the revised law has been criticized on several counts. The responsibility to be borne by the generator of the waste has actually been reduced, rather than extended. The fund to restore land damage by illegal dumping depends entirely on voluntarily contributions. The opinions of the interest groups, the local government, the affected parties, and the specialists are granted no more than a hearing. No regulations are imposed upon siting. As far as reducing disputes over industrial waste goes, 60% of local governments consider the revised law useless. On December 26, 1997, the Director of Water Works and the Environment, on behalf of the Ministry of Health and Welfare ordered local governments to re-examine how far the local by laws had been applied in practice, over and above those regulations whose first requisite for the granting of permission to contractors for the construction of landfill sites is to seek for and obtain permission from resident in the area before construction work begin. Approximately 70% of prefectures had made the requisite arrangements for seeking and obtaining local residents' permission to construct sites (The Nihon Keizai Shinbun, 1997).

So, why, in spite of all the revisions to the Waste Management Law, a radical solution not yet has been found? My own opinion is that the existing law and the general administration of waste control as sponsored by Ministry of Health and Public Welfare is fundamentally flawed. One of the points is that there is no regulation that set standard of the waste treatment price.

Under the direction of the Ministry of Health and Public Welfare, the Japanese Government administration of the public cleansing services had focused on the prevention of infectious disease, and, to achieve this, incineration has been regarded as the most effective method. Subsequently, in order to enlarge their market, refuse facility (dustman) managers took advantage of the public tendency to throw away domestic garbage as nothing more than "obsolete scrap." The resultant cost of disposal, approximately five times higher than for the disposal of industrial waste, has been cover by taxes payers rather than by the producers or removers of the waste. As a result of these discrepancies, large-scale incineration operations carried out by the public cleansing service have led to dioxin pollution, landfill sites that are now about to overflow, and very slow progress has been made in recycling effort.

5 Conclusion

Illegal dumping and the sloppy management of treatment plants are two problems that have defiled the environment, causing water, air, and soil pollution in surrounding areas as well as spending a very high cost to treat the wastes. Throughout Japan there are rapidly growing opposition movements by residents protesting both existing plants and plans to construct new industrial waste treatment plants.

The Illegal Dumping Prevention should be established. To stricter of penalty in the Disposal Waste Management should be accompanied by the way out. Moreover, to have exchange information and establish partnerships to develop and implement strategies to combat illegal dumping is another effort. The overall goal of further this study is to examine value of national law enforcement, local efforts to prevent and mitigate illegal dumping in Japan as well as in Indonesia.

References

- [1]Bar Association of Kanto District (1996) *Haikibutsu Shoriho Kaeseri ni Mukete* [Report toward the revision of waste disposal and public cleansing law]. Tokyo.
- [2]Hanashima M, Takatsuki T, Nakasugi O. (1996) "A case study of environmental contamination caused by illegal dumping of hazardous waste." *Haikibutsu Gakkaishi* [Waste Management Jurnal] 7:208-219
- [3]Hershkowitz, A and E. Salerni. (1987). *Garbage Management in Japan*, INFORM: New York.
- [4]Japan Bar Association (1996) *Haikibutsu no shori oyobi seiso nikansuru horitsu no kaisei ni taisuru ikensho* [Report on the revision of the Waste Disposal and Public Cleansing Law]. Tokyo.
- [5]Kenji Kobayashi (2003). *Illegal dumping of industrial waste and new laws.*
<http://strategis.ic.gc.ca/epic/internet/inimr-ri.nsf/en/gr117612e.htm>
- [6]Mainichi Shinbun (March 19, 2004) *Japan's biggest waste dumping site in Gifu.*
- [7]Mainichi Shimbun (October 18, 2004). *7 busted over illegal dumping of industrial waste in Gifu.*
- [8]Ministry of Environment (2003). *Survey on Illegal Dumping of Industrial Waste in FY 2003.*

- [9] Ministry of Environment (2004). White Paper Focuses on Illegal Dumping. Tokyo.
- [10] Special Committee on Industrial Waste in the Living Environment (1996) The fundamental direction of countermeasures to cope with industrial waste. Ministry of Health and Welfare. Tokyo.
- [11] Shimizu Kaho. Rural areas beset by illicit city trash heaps. Japan Times. May 24, 2003.
- [12] Taguchi Masami (1998) Asahi Shinbun, January 25, 1998.
- [13] The Asahi Sihimbun. (September 25, 2004). Turning a Blind Eye: Japan's garbage mountains keep getting higher.
- [14] The Nihon Keizai Shinbunn. Ministry of Health and Welfare. April 9, 1997.
- [15] Waste Management Law (WML) 2001. Article 1, 2, 4, 5, 12, and 19.

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