

**THE INTERNATIONAL JOINT SEMINAR
&
VISIT TO CLEAN AUTHORITY OF TOKYO
(Shin-Koto Incineration Plant)
TOKYO METROPOLITAN GOVERNMENT
Humanizing Collaboration between Indonesia & Japan**

Reported by:
Miranda Lysmawati
120820160506

Marketing Analysis Report

Japan is one of a country that has a very advance technology but still preserving their culture. In our first day in Japan, we went straight to Rikkyo Univeristy for the joint seminar. After that we went to Nakamise Dori in Asakusa. Asakusa is probably the most famous district in Japan, where we could find everything from traditional side of Japan, such as temple and shrine and also modern technology and amusement side such as Tokyo Sky Tree. There are many shrines in Asakusa, such as Asakusa shrine, Ootori shrine, Nishi-Asakusa Hachiman shrine,

In Asakusa there is the oldest and most visited Buddhist temple in Tokyo called Sensoji Temple. To access this temple we enter from Kaminarimon gate to Hozomon gate. Between those two gates, there is 250 meter's long shopping street called Nakamise Dori, which also the oldest shopping street in Japan. Been there since 17th century, so that many of the shops have been run by the same family from many generations. Nakamise also has an easy access, only 2 minutes from Asakusa station.



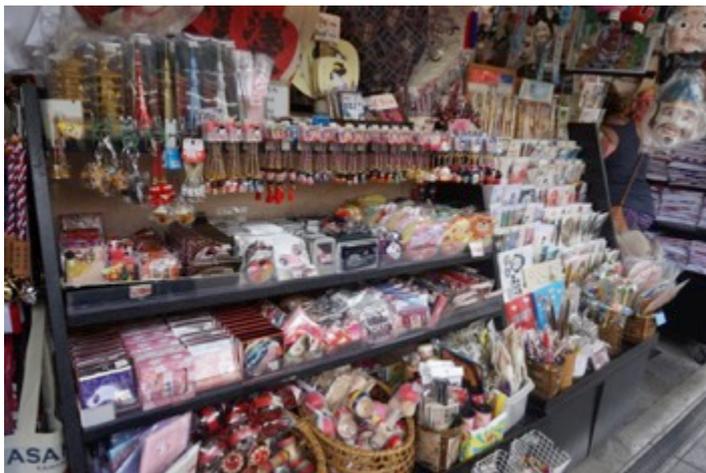
It is quite intriguing when you get to know how this street became commercial in history. When Edo Shogun government started people were encouraged to visit and pray at Sensouji Temple, and neighbourhood residents were obliged to clean the Temple compound out of community duty (for free), and the government gave them a legal right to conduct commercial business in and around the Temple, in exchange for their duty. Nakamise dori is the best place to buy souvenirs and also to try Japanese street food and snacks. The decoration of the shops is also delighted, since its decorated with traditional Japanese style.

There are more than 90 stores along this street. You can find all variety of souvenirs from keychain, magnet, accessories, clothes until some rare and very unique items which makes this street always full of tourist, domestic and international. There are also a lot of snacks and traditional food stalls. But unlike in Indonesia, never think you can eat while walking here. The seller will ask you to finish your food in their store. Because eating while walking in here is prohibitted, and basically Japanese people do not like to do that.



Some of interesting souvenirs and street food that you can find in Nakamise Dori, such as:

- Some keychain, magnets, post card, mini wallet, miniature, etc



- Lampions and lanterns



- Japan's wooden mask. There are several characters that usually appear in Japan's wooden mask, there are *Noh* mask : evolved from the *gigaku* and *bugaku* and acted by men. *Noh* mask represent god men, women, madmen and devil ; *Oni* mask or devil mask ; *Kyogen* and *Tengu* mask which a typical long nose mask.



- Japan's Maneki-Neko Lucky Cat is a popular Japanese lucky charm, originating in the Edo period. The Maneki-neko cat features one or two raised paws, in a beckoning (welcoming) pose. Lucky cats come in all sorts of sizes and colors, and might have a movable paw that gently beckons. The classic Maneki-neko cat is traditionally a calico Japanese Bobtail cat, made from ceramic. Traditional lucky cats will feature a collar, bell and decorative bell.



- Melon Pan. This is one of Japan's street food. This is a sweet bread which made from dough covered by crisp cookie dough. Its called melon pan not because its actually melon flavored, but because it looks like melon.



- Agemanju. It is a small round steaed cakes coated in tempura batter and deep fried. The filling is usually a sweet red bean or anko, sweet potato and kabocha pumpkin. The various of sesame seeds, macha, pink batter or ume plum, etc. It is cost 100 – 150 yen.



Another traditional snacks that popular in Nakamise are various traditional confections such as Kaminari-okoshi which sugar coated soft rice craker, Ningo-yaki or doll-shaped cake filled with red bean paste, Age-manjyu or battered and deep friend soft cake filled with red bean paste, Dango or skewered ball shaped rice flour dumpling and Asakusa-senbei or rice crackers. Since those sweets have so many variations in style and taste at each shop, so we better purchase a small portion per item for tasting.

Cultural Analysis



Japan is one of the country which has the most advance technology in the world. Nonetheless, Japan also has a strong inherent culture. Sensoji is a Buddhist temple located in Asakusa. It is one of Tokyo's most colorful and popular temples. The legend says that in the year 628, two brothers fished a statue of Kannon, the goddess of mercy, out of the Sumida River, and even though they put the statue back into the river, it always returned to them. Consequently, Sensoji was built nearby for the goddess of Kannon. The temple was completed in 645, making it Tokyo's oldest temple. When approaching the temple, visitors first enter through the Kaminarimon (Thunder Gate), the outer gate of Sensoji Temple. A shopping street of over 200 meters, called Nakamise, leads from the outer gate to the temple's second gate, the Hozomon. Many people believe that the Asakusa Kannon deity enshrined here has the ability to bestow benefits on earth, and around 30 million visitors from throughout Japan and abroad visit the temple every year. It was the epicenter for the development of Edo culture, and these traces still remain today. Many seasonal events are held including the Hozuki (Chinese lantern plant) Market and Hagoita (wooden paddle) Market. The huge lanterns hung at Kaminari (Thunder) Gate are very famous throughout Japan. Beyond the Hozomon Gate stands the temple's main hall and a five storied pagoda. This temple is still actively used as a place of worship.

Religion in Japan is a wonderful mish-mash of ideas from Shintoism and Buddhism. Unlike in the West, religion in Japan is rarely preached, nor is it a doctrine. Instead it is a moral code, a way of living, almost indistinguishable from Japanese social and cultural values. Japanese religion is also a private, family affair. It is separate from the state; there are no religious prayers or symbols in a school graduation ceremony, for example. Religion is rarely discussed in every day life and the majority of Japanese do not worship regularly or claim to be religious. However, most people turn to religious rituals in birth, marriage and death and take part in spiritual *matsuri* (or festivals) throughout the year.

Shintoism is Japan's indigenous spirituality. It is believed that every living thing in nature, such as trees, rocks, flowers, animals and even sound, contains kami, or gods. Consequently Shinto principles can be seen throughout Japanese culture, where nature and the turning of the seasons are cherished. This is reflected in arts such asikebana (flower arranging) and bonsai, Japanese garden design and the annual celebration of sakura or cherry blossom.

Contemporary Japan is a secular society. Creating harmonious relations with others through reciprocity and the fulfillment of social obligations is more significant for most Japanese than an individual's relationship to a



transcendent God. Harmony, order, and self-development are three of the most important values that underlie Japanese social interaction. Basic ideas about self and the nature of human society are drawn from several religious and philosophical traditions. Religious practice, too, emphasizes the maintenance of harmonious relations with others (both spiritual beings and other humans) and the fulfillment of social obligations as a member of a family and a community.

In Japanese mythology, the gods display human emotions, such as love and anger. In these stories, behavior that results in positive relations with others is rewarded, and empathy, identifying oneself with another, is highly valued. By contrast, those actions that are antisocial, or that harm others, are condemned. Hurtful behavior is punished in the myths by ostracizing the

offender.

No society can exist that tolerates significant antisocial behavior in the long term, but Japan is among the societies that most strongly rely on social rather than supernatural sanctions and emphasize the benefits of harmony. Japanese children learn from their earliest days that human fulfillment comes from close association with others. Children learn early to recognize that they are part of an interdependent society, beginning in the family and later extending to larger groups such as neighborhood, school, community, and workplace. Dependence on others is a natural part of the human condition; it is viewed negatively only when the social obligations it creates are too onerous to fulfill.

In interpersonal relationships, most Japanese tend to avoid open competition and confrontation. Working with others requires self-control, but it carries the rewards of pride in contributing to the group, emotional security, and social identity. *Wa*, the notion of harmony within a group, requires an attitude of cooperation and a recognition of social roles. If each individual in the group understands personal obligations and empathizes with the situations of others, then the group as a whole benefits. Success can come only if all put forth their best individual efforts. Decisions are often made only after consulting with everyone in the group. Consensus does not imply that there has been universal agreement, but this style of consultative decision making involves each member of the group in an information exchange, reinforces feelings of group identity, and makes implementation of the decision smoother.

Cooperation within a group also is often focused on competition between that group and a parallel one, whether the issue is one of educational success or market share. Symbols such as uniforms, names, banners, and songs identify the group as distinct from others both to outsiders and to those within the group. Participation in group activities, whether official or unofficial, is a symbolic statement that an individual wishes to be considered part of the group. Thus, after-work bar hopping provides not only instrumental opportunities for the exchange of information and release of social tensions but also opportunities to express nonverbally a desire for continued affiliation.

Company Visit

SHIN-KOTO INCENERATION PLANT



Influence exerted on the environment by human activities has become one of the global issues. Waste disposal is one of the most fundamental problem in a country, especially in developing country Indonesia itself produce 65 million ton of waste everyday as per 2016 which increase by 1 ton since 2015 ¹. In order to bring a solution to waste issue, it is important to reduce waste as little as possible and promote the recycling of waste. Waste is nonetheless produced, and the fact that waste problem is crucial, it is very important to find a way to manage this waste with an adequate manner. Government have to figure out how to manage this waste as well as utilize it into a resource that has a benefit and economic value. It is not something impossible to do, in fact developing countries proves that with technology, they could use waste as one of the resources to develop the country and support the economy. There is a potential in waste which could be utilized through a waste management. But a waste management will not be successful without the involvement of all parties, such as government, private, and ofcourse the society.

One of developed countries that an advance and successful waste management system is Japan which proves successfully manage the waste and utilize it as some kind of resources to develop the country. Japan use a waste incineration technology to manage their waste. Burning is an excellent way of processing waste and recycling energy since combustible waste is burnt in a hygenic manner, reducing the volume to 5% while heat generated serves to generate electricity for energy recycling. In other words, the concept behind waste incineration is using the waste that would normally be put into a landfill as a fuel. This fuel could be used to heat a boiler and the steam created from the boiler could the be used to power a turbine. The work from the turbine could then be used to generate electricity which could be very useful in an area where space is limited and large landfills cannot fit ².

Shin-Koto Incineration Plant is the largest incineration plant in Tokyo which built in September 1998 and plays an essential role of processing waste produced within 23 cities in Tokyo. The features of this plant such as a) National top-class waste disposal plant. As one of the biggest plant in Japan, this plant incinerates 1,800 ton waste per day and about 400,000 ton per year, b) Air pollution prevention. Plant removes most of hydrogen chloride contains in exhaust, dust, sulfur oxides, and mercury ; c) Compatible with the global and local environment.

¹ <http://nasional.republika.co.id/berita/nasional/daerah/17/03/15/omv2sg319-setiap-hari-indonesia-produksi-sampah-65-juta-ton>

² <http://me1065.wikidot.com/waste-incineration>

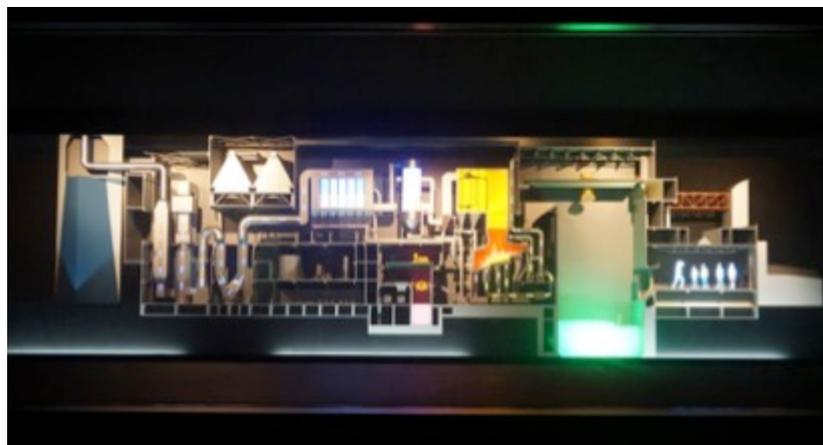
Plant Overview & equipment specification³ :

Site area	61,000 m ²
Incineration	1,800 per day
Construction cost	Approximately 888 billion yen
Completely built	September 1998
Building scale	Reinforced concrete (partially iron framed) ; Nine stories above (partially one under) the ground
Building site	Approximately 28,000 m ²
Total floor area	Approximately 77,000 m ²
Stack	Outer cylinder : reinforces concrete made Inner cylinder : stainless steel sheet made
Height	150 m
Incinerator	Fully continuous incineration, fire generate type 600 ton/ day x 3 units
Boiler	Natural circulation type water pipe boiler with heater. Maximum steam generated : 121.3t/h x 3 units
Turbine Generator	Bleeder condensing turbine 50,000kW x 1 unit
Dust collector	Bug filter dust collector. Volume of treated exhaust gas : 200,000Nm ³ max/hour x 3 units
Refuse bunker	Approximately 45,000m ³
Refuse bunker gate	2, 1 double-leafed hinged gates
Ash bunker	Approximately 2,900m ³
Power reception equipment	Incoming power voltage 66,000 volt, 2 lines

Japan's advanced technology and extensive experience in waste management makes Japan a suitable model for Indonesia. The government believes that an incineration plant is suitable for Indonesia to solve its waste problem. Indonesia could adopt and learn Japan's technology and development in waste management. With more than 260 million population and a vast region, this waste issue should be a priority since the population number is growing which leads to increasing consumption.

Incineration process

Japan sorts its waste by combustible waste, incombustible waste and large sized waste. Chubu Incombustible Waste Processing Center will process the incombustible waste, incineration plant will process the combustible waste and Large sized Waste Pulverization Processing Facility will process the large sized waste. Since we talk about the incineration process, it means that we will talk about the combustible waste.



Miniature of the overall incineration process

³ Shin-Koto Incineration Plant pamphlet

The process of incineration described as follows:

1. The process start from measure the weight of waste which carried in by garbage trucks is dumped into the waste bunker.
2. The waste is temporary stored in the bunker until the incineration process and then thrown into the waste hopper by waste crane. The wastes is flattened and sent into the incinerator.
3. Incinerator burns the waste continuously on the stoker at a very high temperature, approximately 800°C.
4. The steam from the incineration of the waste is then used to heat up the working fluid, usually water, in the boiler
5. The steam from the previous process is then piped to a turbine generator to create electricity. The left over burnt waste and heaviest ash falls into a collection area
6. Cooling tower spraying the water around the 250°C to exhaust gas from the boiler and lower the temperature immediately to 170°C, thereby preventing the re-synthesis of dioxin.
7. Bag filter. Blowing slaked lime and the reagent which reacts with dioxin into the bag filter removes dioxin, mercury, hydrogen chlorides and sulfur oxides from exhaust, soot and dust of flue gas from the cooling tower.
8. Wet Gas Scrubber removes acidic gases, such as sulfur dioxide and hydrogen liquid chloride as well as mercury in flue gas by rinsing with caustic soda and liquid chelated water.
9. De-Nox Catalyst Reaction Tower. Changes Nox contained in flue gas into on harmful nitrogen and water with a help of catalysis by blowing ammonia gas, and the catalysis decompose dioxins.
10. Ash Bunker. Ash is produced by incineration is temporarily stored and then transported out in an ash carrying vehicle
11. Steam Turbine Generator. The steam turbine generator is a system to generate electric power utilizing steam produced by the boiler
12. Wastewater Treatment Facilities. Sewage drained from the plant undergoes extensive treatment, and part of it is re-used in the plant, with the rest released into the municipal sewage system.

The operation of the entire plant is intensively monitored in the Central Control Room with the computers. All the equipment is also under control of the room.



The garbage truck



The waste crane



The steam turbin generator



The ash bunker



The controlling room



View from the incineration plant

Japan has been proven to successfully implement its waste management across the country. Indonesia could develop the same way of waste management as Japan and implement it in each province. Waste is such a crucial issues for Indonesia since it has been proven become one of the main cause of flood. Government should be more vigorous about the reducing waste, meanwhile built proper waste facility such as differentiate types of waste, flammable waste, can waste, plastic bottle to simplify the sorting process. The government also should realize the development of incineration plant, as Indonesia has a benefit of big land that we can use as a plant or we can revamp the existed landfills into inceneration. To optimize the result, government can also make a cooperation with private company as an investor and also consumer who could utilize the process result of the incineration, which is heat as a business.