

**THE INTERNATIONAL JOINT SEMINAR &
VISIT TO CLEAN AUTHORITY OF TOKYO**

(Shin-Koto Incineration Plant)

TOKYO METROPOLITAN GOVERNMENT

Humanizing Collaboration between Indonesia & Japan

Held By :



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A. Marketing Analysis

Traditional Market of Japan Tsukiji Fish Market

Japan is one of most developed country in the world. Japan is an industrialized free market economy and has the second most technologically powerful country in the world following the United States. Japan also has the third largest economy after United States and China. The Japanese economic system embraces the free market economy and is industrialized. This system is similar to the economic system adopted by other industrialized countries, like Germany, United States, Great Britain, and other developed country.

As we know, Japan is famous for its various products in the field of technology where automotive and electronics are the main of Japan product offered, like Mitsubishi, Honda, Yamaha, etc. Beside that, Japan have the biggest seafood market in the world, it is Tsukiji fish market. Tsukiji fish market opened in its current location 1935 after the market moved from the Nihonbashi area in the wake of the devastating 1923 Great Kanto Earthquake.

Tsukiji fish market is the large wholesale market for fish, fruit, and vegetables in Tokyo Japan. It is the most famous of over ten wholesale markets that handle the distribution of food and flowers in Tokyo. Tsukiji Market is best known as one of the world's largest fish markets, handling over 2,000 tons of marine products per day. Tsukiji Market consists of an inner market where most of the wholesale business and the famous tuna auctions are taking place, and an outer market whose retail shops and restaurants cater to the public.

Originally Tsukiji Market used to be the wholesale market for the professionals. That is why items sold there were generally too big for a small family to buy. However, some of the wholesale shops in the market have started retailing high-end merchandises for ordinary customers. For example, ready-to-eat omelets for sushi are now sold in smaller sizes. Even a bite-sized egg roll can be had for those who just want to try it. Tsukiji Market, primarily catering to the professionals, has recently opened its doors to ordinary customers and visitors.

You can come to Tsukiji to see tuna auction at 3.30 am, visitors can register at the information center. The number of visitors is limited to 120 people each day and divided into 2 groups, each amounting to 60 people. Tuna auctions is same method with the general auctions. with the auctioneer who yelled open the price greeted the auction participants who are competing to raise their offer. But given they are fighting fish, and this activity takes place in the middle of the fish market at a very early time, making the experience of watching tuna auctions as one of the uniqueness in Tokyo. Tsukiji Market is divided into two parts the inner market which is a place of fish auctions and outside markets that sell fish, vegetables and fresh fruits. So if you do not have time to watch the Tuna auction, then there are many other things that can be seen in Tsukiji Market. The outdoor market is divided into several aisles that sell a variety of fresh fish. So, besides seeing a variety of fresh seafood, visitors can also taste it at restaurants along the market.

Tsukiji Market consists of an inner market where most of the wholesale business and the famous tuna auctions are taking place, and an outer market whose retail shops and restaurants cater to the public. A few restaurants are also found in the inner market



Many kind product of seafood in Tsukiji Fish Market there are fresh product and processed product. The fresh product, we can see many kind fresh seafood on side of the path like squid, fish, sea urchins, octopus, eel, scallop, etc. Seller offer their product with several ways like the seller promoted their product in front of the shop and cooked their product in front of customers or they promoted their product in front of the shop and cooked and served their product in the restaurant or they served the product in a fresh condition.

Processed product like dried seafood and seafood pickles. Tsukiji fish market not only for seafood but there are also have some fruit and vegetables. I can see a lot a seafood, fruit, vegetables, and others food in there. I think tsukiji is not a market because the cleanliness of them. I was amazed in the fish market did't have smell fishy at all.

You can find tsukiji fish market easliy because Tsukiji fish market located in central Tokyo. Because of that, cutomers of tsukiji fish market number have increased so much over recent years, that they have become a problem to the course of business, as the aging market's infrastructure was not anticipated to serve as a tourist spot. Tsukiji Market consists of an inner market where most of the wholesale business and the famous tuna auctions are taking place, and an outer market whose retail shops and restaurants cater to the public. A few restaurants are also found in the inner market.

Tsukiji Market is just above Tsukiji Shijo Station on the Oedo Subway Line. Alternatively, it can be reached in a five minute walk from Tsukiji Station on the Hibiya Subway Line. The closest JR station is Shimbashi, from where you can walk to the market in about 15 minutes.

If you from Tokyo station Take the Marunouchi Subway Line from Tokyo to Ginza (3 minutes) and transfer to the Hibiya Subway Line to get to Tsukiji Station (3 minutes). The fare is 170 yen. If you from Shinjuku station Take the Oedo Subway Line directly from Shinjuku Station to Tsukiji Shijo Station. The one way trip takes 20 minutes and costs 270 yen.

Tsukiji is divided into two areas: the outer and inner markets. The outer market is the network of streets and alleys packed between the intersection of Shin-Ohashi-dori and Harumi-dori and the northern edge of Tsukiji's actual fish market.



It's filled by restaurants, grab-and-go snack stands, and vendors of wares ranging from value-priced dishware to luxury-grade seaweed. Tsukiji's inner market, the market proper is the area where the business of commercial seafood transaction actually takes place. Within the inner market, adjacent to the airport terminal-sized structure where all the butchering, buying, and selling goes down, is another, much smaller cluster of restaurants and vendors.

Tsukiji's abundance of choices can be overwhelming; these 10 excellent options —

five in the outer market; five in the inner market — won't fail you. Even at these spots, you may well have to wait in line for a while, but in every case it'll be a fraction of the time you'd spend waiting at the more tourist-famous spots — even faced with the longest lines, you could hit up fully half of these restaurants and stalls in the time you'd spend just waiting to dine at Daiwa or Dai. The price of product at tsukiji for tourist like us, is not cheaper. The price of one sea urchins is 1000 yen, It is not cheap.

In Outer market there is a kagura restaurant. Situated in a quiet spot toward the back of the outer market, Kagura is uniquely renowned for *aburi* sushi, with toppings that have been seared or grilled. Their showcase aburi set includes seven pieces of *nigiri* (standard bite-size sushi) for around ¥2,700. I prefer to bring some money if you find some culinary at tsukiji.

In the Tsukiji fish market, customers and seller face to face to process buy and sell the product. Seller so kind to their customers, because of that the customer feel comfort to shopping at tsukiji fish market. Sometimes seller offer the new their products with the code because they can't speak another languages beside Japanese.

Some food is interesting for me, like ice cream and mochi with fruit in the top of mochi. The ice cream have many kind of flavor and some flavor in typically Japan. The typically flavor are like wasabi, hokaido melon, and greentea. The Wasabi Ice Cream provided a strange sensation upon each taste, but definitely something that we would order again. The wasabi was not overpowering, but yet a small kick to it, and added a crazy depth to the traditional soft-serve.

The unique mochi at tsukiji so interested for me. I curious with the taste of the mochi. I bought strawberry mochi with various flavor. First bite is like mochi in general, but after mix with the fruit taste of the mochi more good than before.

After taste the ice cream and mochi, I looking for food for lunch. After I looking around, I found an actual indoor strip of nicer vendors from here, without big crowds. In here were vendors cutting up massive tuna that they had bought fresh that day, and providing samples on toothpicks to all passing by — just like the competing Chinese food vendors in a mall. They also offered a variety of items that we purchased, including freshly squeezed mandarin orange juice and salted fish crackers.

B. Cultural Analysis



Asakusa located in Taito-ku along the west bank of the Sumida-gawa river, is one of Tokyo's major sightseeing areas, famous in particular for Sensoji Temple. The temple's imposing red Kaminarimon Gate dominates Asakusa's main street and is the district's best known landmark. The history of Sensoji Temple is in the past, fisherman brothers discovered an image of Kan'on (the goddess of mercy) in the Sumida-gawa River around the year 628 and were inspired to enshrine it. The temple's symbol is the Furai jin-mon (Gate of Wind God and Thunder God) adorned with a large red paper lantern that bears the inscription "Kaminari-mon" (Thunder Gate). There is a constant flow of visitors and worshippers to the temple throughout the year.

In Asakusa there is a shopping area they call it Namikase Dori. The area of Namikase Dori along approximately 100 meters. There are many shops of souvenirs from keychain, chopstick, fans, bookmark, umbrella, T-shirt, to kimono. Not only souvenirs, at Namikase we can also find the typical food and Japanese pastries. In the Namikase mostly they use Japanese for the language. For me that is some trouble but it's okay if they attach price tags on each item, so I just choose which one I want to buy.

Not only temple, Asakusa also has many traditional events. The Sanja-matsuri festival at Sensoji Temple is famous for the palanquin parade that is said to convey the "Edokko Katagi," or the spirit of the children of Edo, representing the traditional temperament of the original townsfolk of Tokyo. Other festivals include Hozuki-ichi (ground cherry market) in summer, Tori-no-ichi (rooster market) at Otori-jinja Shrine in early winter and Hagoita-ichi (Japanese battledore market) at the end of the year. The most popular event is the fireworks display along the Sumida-gawa River in summer, which over one million people gather to watch.

In Japan we can find a diversity of religions and beliefs in Japan, starting from Shinto, Buddhism, Confucianism, to Taoism, there are also various religious groups that are often referred to as the new religion, folk religion, Christianity, and Islam. New denominations are religious movements, which have emerged in Japan since 1945, since the Japanese government has given equal treatment to all religions and beliefs that have existed.

In Japan today, religion is freely practiced and, at least in small numbers, a multitude of religions are present. The religious beliefs of Japan's populace breakdown to 91% Shinto, 72% Buddhist, and 13% other (less than 1% is Christian). Although in the West religious faiths are viewed as mutually exclusive, in Japan it is common for a person to adopt beliefs from more than one theology. The majority of the population therefore is *both* Buddhist and Shinto. Both of these faiths center upon nonmaterial, group values. Buddhism stresses oneness; people are not isolated, but are instead part of a network of souls. Buddhists traditionally eschew material possessions and strive to reach nirvana, becoming one with the universal spirit and thus throwing off the yoke of their individual identities.



Japan is a country attached to its culture so it may be not easy for accept another thing from outside like using foreign languages. Mostly Japanese people does not have any language beside their own languages, just each other study other languages like English.

Other culture of japan is a level of discipline. In this country mostly people already to discipline from traffic regulation, queue, to cleanliness. You may be difficult to find a trash can, so you must bring your trash until you find a trash can or dump. Even though they have garbage disposal workers, Japanese people can keep the cleanliness their country until now. That is something very difficult to apply in Indonesia. Sometimes rules are not applied to everyday activities when in fact it is very easy to do. But, the great sense of laziness makes the Indonesian people difficult to apply it. Maybe amount of Indonesian Population

In japan, trash can divided into 3 part. There are combustibile trash like kitchen garbage, paper, wood, etc. non-combustibile trash like glass, chinaware, metals, ets. Recyclable trash like bottles, PET Bottles, cans, newspaper, etc. The aim of that is for make easier and to establish a comfortable life for all.

Japan has taught discipline since childhood, so that they can later have a great work ethic. The work ethic continues to be transmitted to the next generation in order to maintain its sustainability. One example is the culture of shame if the office home faster. Usually, people who leave the office longer (overtime) are the people who have an important and reliable role in the company. The returning workers are regarded as unproductive or unimportant workers. Overtime or not a person even used as a tool to measure the value and status of a person.

Japanese people also have culture of reading, mostly Japanese people bring a book anytime and anywhere to be read for themselves. Although this era is computerized but, Japanese people mostly like reading a book than read an articles on the internet. In japan they have culture of reading for free, it name Tachiyomi. Every bookstore in japan apply tachiyomi for their customers.



In Japan Independent living is important, Japanese people are said to be independent because they do not always live in conflict with others. They feel he is capable enough to do things he deems capable. So do not be surprised if the Japanese people can really face this age of globalization. Japanese people are work a holic, mostly of them prefer to delay have a child or don't have a child. Because they focused and love their job. Today, for many Japanese, there is an increasing sense of isolation and ambivalence toward belonging to the group. Particularly within the past decade, the conflict between person freedom and community identity has increased markedly

The increasing isolation in Japanese society can also be observed in a more extreme form in the phenomenon of otaku. "Otaku" is a Japanese word for a new cultural group which emerged in the 1970s. The otaku are widely regarded by Japanese society as alienated, anti-social, introverted and selfish young people who stick to computers, comics, and anime imagery without any real communication or social activities. They are generally considered by their elders to be demented outsiders who border upon the sociopathic. As Japanese society grows increasingly more advanced and postmodern in its outlook, the rift between its old-world Buddhist and Shinto traditions and the fast-paced, materialistic, and often disaffected lifestyle of its citizens grows alarmingly wider.

In entertainment Japan have some culture like geisha. Geisha is a artist in Japan. A long standing on Japanese Geisha Girls. When someone thinks of a Geisha, they think of a glorified prostitute. This is far from the truth. Geisha's are entertainers, and they are trained vigorously in art, music, and dancing. Being a true Geisha is an honor to the girls, who when they become full-fledged Geisha's are then called Geiko. If a girl begins her training to be a Geisha before she is 21, she is called maiko, meaning child dancer. A girl or woman can become a Geisha even if she wasn't maiko, but if she had been a maiko she would enjoy much more prestige.

Geisha wearing a kimono, and over their kimono is an obi (sash). Geisha tie their obi in the back. The lips are colored red but not the entire lips, only parts of them. A lot of established geisha only wear their make up when doing a special performance. Tokyo geisha are more to be sassy, while geisha from Kyoto are more demure.

C. Company Visit
Shin-Koto Incineration Plant

Tokyo is Japan's capital and the center of Japanese politics, economy, and culture. Core management institutions, such as head offices of companies, administrative agencies, and foreign corporations, are all concentrated in the metropolitan area, while a web of road and transportation networks converge in the city. This polarized concentration is generating more waste which shall be managed more efficiently. Japan in total has 47 prefectures. Tokyo is one of its prefecture.

The 23 Cities and the Tokyo Metropolitan Government had discussed for many years their respective roles and institutional frameworks from viewpoints such as stronger autonomy of the 23 Cities and the promotion of mega-city administration by the Tokyo Metropolitan Government on an extensive scale. One result of these discussions was that, on April 1, 2000, the duties of municipal waste management were transferred to the 23 Cities. At that time, it was decided that each of the 23 Cities would independently manage its own waste collection and transfer, while management of intermediate treatment (incineration, pulverization, etc.) was determined to be handled jointly. This was due to the presence of some cities that had no incineration plant within their cities, and for the purpose of optimizing treatment efficiency. The Clean Authority of Tokyo is a special purpose municipal body established by the consensus of the 23 Cities, based on the Local Autonomy Act, in order to deal with this joint waste management. 23 Cities and the Clean Authority of Tokyo have consigned the landfill disposal operations to the Tokyo Metropolitan Government, which has established and manages landfill disposal sites. There are 21 incineration plants across the district of Tokyo based on official website of 23 Clean Authority of Tokyo :

No	Facilities name	Location
1	Chuo Incineration Plant	104-0053 5-2-1, Harumi, Chuo-ku
2	Minato Incineration Plant	108-0075 5-7-1, Kounan, Minato-ku
3	Kita Incineration Plant	115-0042 1-2-36, Shimo, Kita-ku
4	Shinagawa Incineration Plant	140-0003 1-4-1, Yashio, Shinagawa-ku
5	Meguro Incineration Plant	(among Plant remodeling)
6	Ota Incineration Plant	143-0003 3-6-1, Keihinjima, Ota-ku
7	Tamagawa Incineration Plant	146-0092 2-33-1, Shimomaruko, Ota-ku
8	Setagaya Incineration Plant	157-0074 1-1-1, Okura, Setagaya-ku
9	Chitose Incineration Plant	156-0056 2-7-1, Hachimanyama, Setagaya-ku
10	Shibuya Incineration Plant	150-0011 1-35-1, Higashi, Shibuya-ku
11	Suginami Incineration Plant	(among Plant remodeling)
12	Toshima Incineration Plant	170-0012 2-5-1, Kamiikebukuro, Toshima-ku
13	Itabashi Incineration Plant	175-0082 9-48-1, Takashimadaira, Itabashi-ku
14	Nerima Incineration Plant	177-0032 6-10-11, Yahara, Nerima-ku
15	Hikarigaoka Incineration Plant	(among Plant remodeling)
16	Sumida Incineration Plant	131-0042 1-10-23, Higashisumida, Sumida-ku
17	Shin-Kōtō Incineration Plant	136-0081 3-1-1, Yumenoshima, Koutou-ku
18	Ariake Incineration Plant	135-0063 2-3-10, Ariake, Koutou-ku

19	Adachi Incineration Plant	121-0812 4-7-1, Nishihokima, Adachi-ku
20	Katsushika Incineration Plant	125-0032 1-20-1, Mizumoto, Katsushika-ku
21	Edogawa Incineration Plant	132-0013 2-10, Edogawa, Edogawa-ku

Garbage collection is one of the stages in waste management. This stage is the earliest stage. Each city sets collection days and areas depending on the type of waste and conducts efficient operations drafting operation plans that correspond to seasonal changes and regional trends in waste amount. The waste management process in 23 cities is not charged for household waste (not exceeding 10 kg per day), in addition to waste and waste of large business activities.

The process of waste management from the collection stage to the drainage stage is the collection and classification of waste originating from homes, shops, offices, schools. Then, the waste is entered according to their respective types according to their nature. Waste can be classified into three types, combustible waste, incombustible waste and large-sized waste.

Combustible waste is loaded onto collection vehicles on collection sites from which it is directly transferred to an incineration plant. Combustible waste is organic waste or garbage derived from vegetable, fruits, eggshells, paper and so on which can be burned or destroyed by burning. Combustible waste will be processed as follows. First, the waste is immediately discharged to the final disposal assigned to the Tokyo Metropolitan Government at the New Sea Surface Disposal Site. The remainder of the ash is delivered to landfill disposal. Second, the bottom ash is recycled to cement and then used as a building material and civil engineering material, etc. Third, the bottom ash is melted into slag used as a civil engineering material, and others. Like a slag, the volume is almost half that of ashes, And about a quarter of its original state as waste. Fourth, it is used efficiently to generate thermal energy. Electricity and hot water generated at the plant are used in the facility to operate the plant, thereby reducing the purchase of electricity and fuel costs. Electric surplus sold to power companies.

Incombustible waste is fire-retardant or indestructible waste by combustion process. Examples of waste in this category are broken glass, broken umbrella, broken pan, and so on. This incombustible waste will be transferred to the Incombustible Waste Processing Center. Incombustible waste is transferred either to Chubu Incombustible Waste Processing Center or Keihinjima Island Incombustible Waste Processing Center. Some cities have established land or boat transfer stations, where waste is reloaded onto container vehicles or vessels for relayed transfer to improved transfer efficiency, reduced traffic congestion and alleviation of air pollution due to exhaust.

Large-sized waste is large-scale of waste, for example broken cabinets, broken mattresses, broken bikes, etc. Large-sized waste is separated into combustible large-sized waste, such as wooden furnitures, and into incombustible large-sized waste, such as bicycles. Large-sized waste is delivered to the Large-sized Waste Pulverization Processing Facility. Cities that have a transfer station conduct relayed transfer by reloading it from smaller collection vehicles onto larger vehicles

Shin-Koto Incineration Plant was completed in September 1998. It plays an important role of processing combustible waste and recycling energy since the heat generated during the incineration process helps to produce electricity for energy recycling. It has a capacity to process 1,800 ton of waste per day and generates 50000 kW with a steam turbine generator. In addition, the incineration plant is equipped with the state -of-the- art air pollution preventive facilities to removes most of the hydrogen chloride contained in exhaust dust sulfur oxides and mercury. It burns combustible waste continuously at high temperature (800-900 deg C) to ensure complete destruction of dioxins, which successfully maintains the emission of dioxins at much lower level than legally stipulated.

Apart from handling waste, Shin-Koto Incineration Plant, as a sustainable incineration plant, provides heat energy for nearby public and community facilities through steam generated from boiling water from waste combustion, an energy recovery process known as WtE (waste to energy). The steam is transported through large pipes to multiple neighbor buildings including a sports center, a swimming pool, and also the

tourist spot Yumenoshima Tropical Greenhouse Dome. At the greenhouse dome the heat energy is used to maintain a stable indoors temperature of 22 degrees Celcius in order to sustain tropical plant species on exhibition.

The energy recovery from combustion of waste is said to be a 'green' practice since it utilizes trash that has no other beneficial purpose and it generates enough energy to replace fossil fuel generated electricity for the neighborhood. We are informed that the collected waste, with thorough sorting and categorizing according to industry standards, contains enough calories that it needs little or no additional fuel for combustion. However, we were not able to obtain enough information at the visit to confirm whether the steam directly supplies heat to maintain the temperature at the greenhouse dome, or goes through a process with turbines to generate electricity to run the facility

Overall, Tokyo has developed their waste management model which is, on the one hand, using incineration to deal with waste in short-term, and on the other hand, promoting the 3Rs (Reuse, Recycle and Reduce) to solve the waste problem in long-term. Shin-Koto Incineration Plant demonstrate how an incineration plant coexist with the local community and it success has make it become the signatory incineration facility in Tokyo, even in the region. Indonesia should learn from their model and try to apply some parts into our local contexts so as to develop a waste management policy which can be able to solve the waste problem.

To solve the waste problems, it is important to reduce the waste generation, reuse waste and to promote recycling waste as resources which is promoted as famous #R by Clean Authority of TOKYO. But no matter how much do these, waste is sure to be discharged and appropriate disposal of waste is necessary. Waste is burnt in the incineration plant and becomes ash of volume of about one twentieth. This process contributes to prolong the limits of disposal sites. Incineration plants are making every effort to prevent pollution. They also utilize the heat energy produced by the incinerators for generatin electric power, supplying steam and hot water to the water front are and nearby public facilities.

The potential of Waste to Energy (WtE) technologies as a solution to Indonesia's growing waste and energy challenges, and offers recommendations that address barriers to deployment. Indonesia's size, rapid pace of development and growing waste challenge make it a market of significant interest for WtE investors and project developers. Indonesia already has in place some of the policy and regulatory drivers to enable WtE, but better information is needed to properly calibrate incentives in coordination with local governments to ensure that WtE facilities are economically attractive investments. An evidence base of expertly reviewed feasibility studies would provide that information, and demonstration projects would help reduce future risks, costs, and negative perceptions of WtE technologies. Together with support for local government capacity building and attention to its social dimensions, Indonesia could become a vibrant market for WtE solutions.

Barriers to Indonesia's WtE (Waste to Energy) market can be further addressed by improving the condition of the waste stream, or assuring its condition remains suitable throughout a WtE project's lifetime. This is essential to attract WtE investors as the unsuitability of waste causes additional pre-treatment costs within WtE plants. Local government should be able to evaluate the cost effectiveness of making upstream systematic changes that improve the conditions of waste before it reaches WtE plants compared to compensating WtE operators for pre-treatment costs through higher tipping fees. Ultimately the cost has to be dealt with by the municipality at some stage. Upstream solutions such as source separation, containerisation, and segregated waste collection and transportation may be less expensive than downstream solutions when considering the full range of benefits of the former. Essentially, upstream solutions create a more healthy urban environment, new job opportunities and enhance the municipality's capacity to recover value from waste, for example, from reuse and recycling.

Shin-Koto Incineration Plant has been conducting waste management through the use of sophisticated technology. In my opinion, it is not difficult to learn, replicated and applied in Indonesia. However, for the application of a similar thing in Indonesia has the biggest challenge in the form of the mindset of the people. Japan can continue to make improvements in waste management not only technology but also by improving the mindset and habits of the people. Japan has clear rules in the sorting of the garbage and the people obey all rules. This happens because there is still a lack of awareness of the community about garbage. The large number of people who throw garbage carelessly is still a major problem in combating

waste.

The recommendation for Indonesia are :

1. Consider integrating education about Waste to Energy in any national awareness raising campaign about waste management, highlighting the health and environmental improvements of newer technology, and the trade-offs that exist between different waste management options
2. The government must strengthen the rules on waste. Anyone who throws garbage carelessly deserves sanctions
3. The Government should send some human resources to learn directly about the process of waste management in Japan, and they will become professional personnel that focus to develop the system in Indonesia