

SPPI for Sewerage and Waste Management Services in Korea

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Overview

- **Standard classification structure**
- **Market conditions**
- **Pricing Methods**
- **Development of SPPIs**
- **Remarks**

1. Standard classification structure

Korean Standard Industrial Classification for the services concerned

Division	Group	Class	Subclass	Description
37				Sewage, Wastewater and Human Waste Treatment Services
	370			Sewage, Wastewater and Human Waste Treatment Services
		3701		Sewage and Wastewater Treatment Services
			37011	Sewage Treatment Services
			37012	Wastewater Treatment Services
		3702		Human and Animal Waste Treatment Services
			37021	Human Waste Treatment Services
			37022	Animal Waste Treatment Services
38				Waste Collection, Disposal and Materials Recovery
	381			Waste Collection
		3811		Non-hazardous Waste Collection
		3812		Hazardous Waste Collection
		3813		Construction and Demolition Waste Collection
	382			Waste Treatment Services
		3821		Disposal of Non-Hazardous Waste
		3822		Disposal of Hazardous Waste
		3823		Disposal of Construction and Demolition Waste
		3824		Disposal of Radioactive Waste
	383	3830		Recovery of Metal and Non-Metal Waste and Scrap
			38301	Recovery of Metal Waste and Scrap
			38302	Recovery of Non-Metal Waste and Scrap

- Currently, SPPI items for these services are limited to human waste and non-hazardous, hazardous and construction waste.
- The names of those items are **“Human Waste Collection & Disposal Services”** and **“Business Waste Collection & Disposal Services”**, respectively.

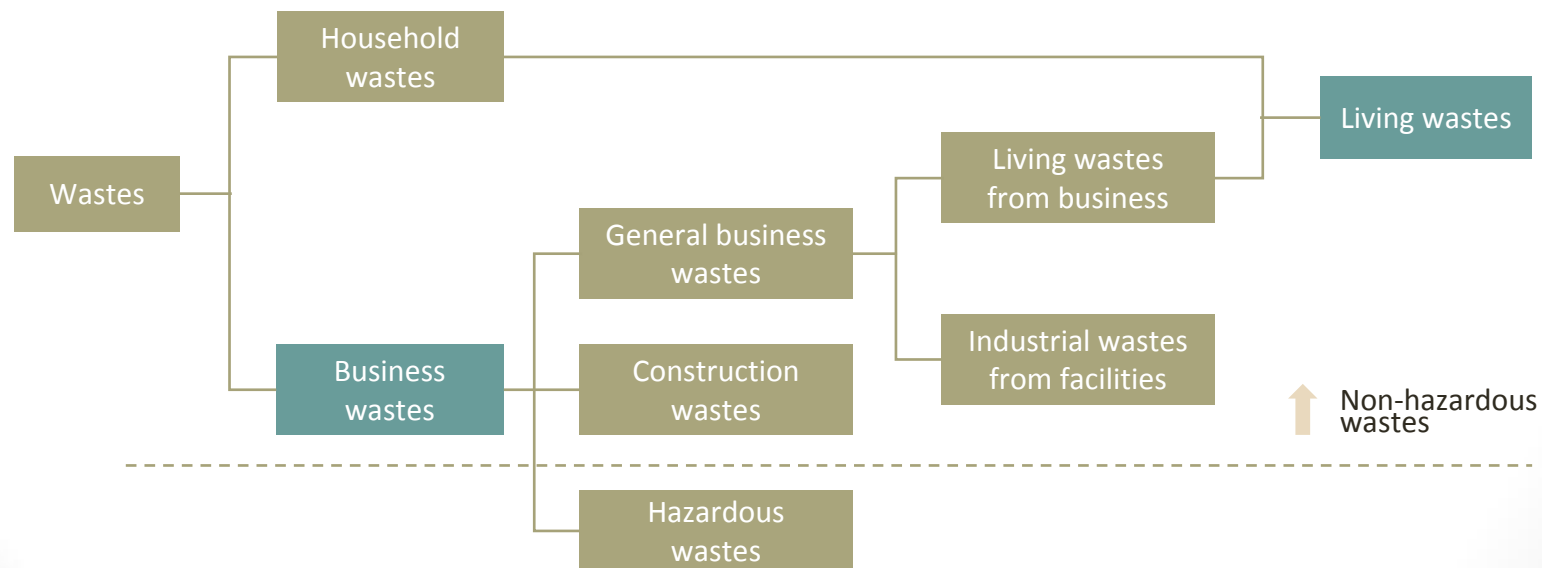
2. Market conditions

(Human Waste Collection & Disposal Services)

- Under the 「Sewage Act」, local governments are responsible for collecting and treating human waste.
- Collection Services
 - The local governments either directly perform or hire licensed companies to collect and transport human waste from its place of generation.
 - The rates are regulated by local government ordinance.
- Disposal Services
 - The waste treatment facilities are operated by the higher level local governments, and subordinate level local governments must pay for using them.
 - The rates are determined and published by the governments in charge of their operation, based on volume and the real costs of treatment the previous year.

(Business Waste Collection & Disposal Services)

- Waste Control Act
 - Under the act, “wastes” are subclassified into **living wastes and business wastes**, or into **Hazardous wastes and non-hazardous wastes** in accordance with their sources, forms and contents.



- Non-hazardous wastes

- 358 thousand tons of non-hazardous wastes were generated per day in 2009.
- Construction wastes accounted for 51.2% of non-hazardous wastes, followed by industrial wastes from facilities at 34.5%, and living wastes from households and business at 14.2%.

Non-hazardous waste disposal methods

	2007	2008	2009
Landfilling	37,554 (11.2)	37,784 (10.5)	39,794 (11.1)
Incineration	17,957 (5.3)	18,709 (5.2)	18,518 (5.2)
Dumping at sea	8,086 (2.4)	6,940 (2.0)	6,992 (2.0)
Recycling	273,561 (81.1)	295,863 (82.3)	292,557 (81.7)
Total	337,158 (100.0)	359,296 (100.0)	357,861 (100.0)

- Hazardous wastes

- About 3.3 million tons of hazardous wastes were generated in 2009.
- 56.8% of hazardous wastes were recycled, 20.7% went to landfills, and 17.1% were incinerated.

- Waste treatment companies
 - As of 2009, there were about 6 thousand companies for these services in Korea(Some companies are double-counted under type of wastes or service stage.)
 - They can carry out either some parts of or the whole process of collection and transportation, treatment and final disposal services, depending upon their licenses.
- Prices related to waste collection, treatment and disposal are market-determined, except in the case of use of landfills owned by local governments, the rates of which are determined by regulation.

Number of waste treatment companies as of 2009

	Collection & Transportation	Treatment	Final Disposal	Total
Living Waste	1,121	-	-	1,121
Business Waste	2,260	880	30	3,170
Construction Waste	1,343	430	..	1,773

3. Pricing Methods

(Human Waste Collection & Disposal services)

- For this item we collect **the list prices** of local governments or their licensed agencies for cleaning the septic tanks of houses and buildings and for transporting the sludge generated to the treatment facilities.
 - The fees are determined by the individual local governments' regulations.
 - A base rate is applied for a tank up to 750 liters in size and extra rates are charged for every 100 liters exceeding that.
 - Currently we only collect the base rates from six major local governments.
 - We conduct a telephone survey every month, and the respondents give us the average base rates in their jurisdictions.
- This index is not concerned with the activities for treatment of the collected sludge at this moment.

(Business Waste Collection & Disposal Services)

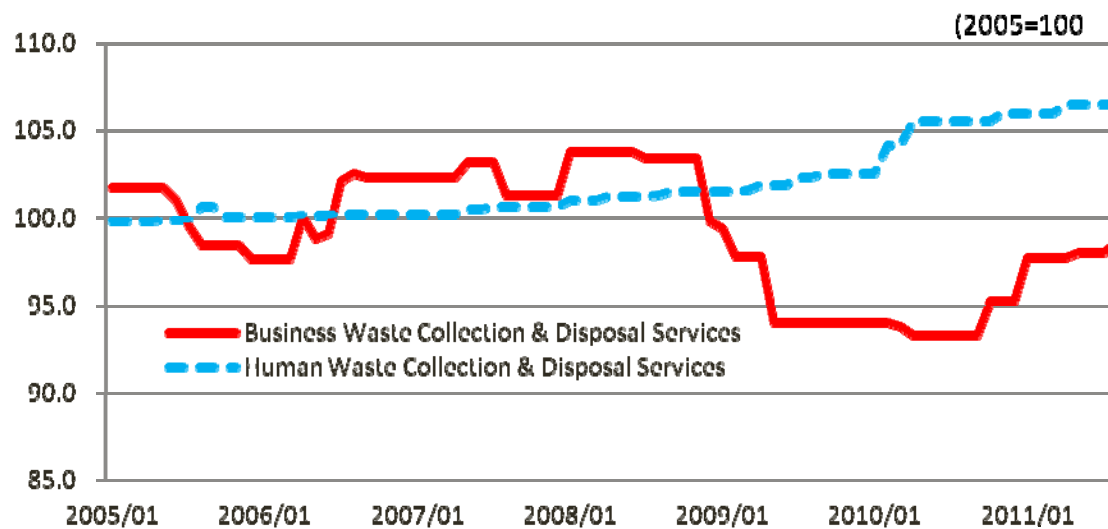
- The pricing method is **direct use of the prices of repeated services**.
 - We collect the contract prices for collection, treatment and disposal services per ton or cubic meter for general business wastes, construction wastes and some hazardous wastes.
 - (non-hazardous) the prices for sludge, waste synthetic resins, waste synthetic fiber, dust, slag and construction wastes.
 - (hazardous) the prices for waste oil, waste synthetic fiber and waste synthetic resins.
- The prices are based on the actual contracts among companies in the months concerned.
 - In most cases it is impossible to collect the prices for each process stage since the contracts usually include all of the stages together or connected process stages.
 - So, we are currently just trying to collect the prices consistent with the same standard.

- Seven large and sustainable companies have been randomly selected as our price respondents.
- The survey is conducted every month, by email and phone.
- We also survey the list prices for landfilling from the website of the 'SUDOKWON Landfill Site Management Corporation'.
 - It is a government agency whose capacity covers about 68% of the national landfill sites.
 - Its list prices per ton, by waste type, are determined by regulation.

4. Development of SPPIs

- “Human Waste Collection & Disposal Services” has shown a pattern of only moderate price increase, as its prices are controlled by regulation.
- The index of “Business Waste Collection & Disposal Services” has shown huge fluctuations during recent years due to the economic downturn and to growing competition in this industry.

Trends of SPPIs in sewerage and waste management services



5 . Remarks

- To improve the balance between our coverage and the output in GDP, we need to expand our price collection to other activities in this industry and compile our SPPI in more detail.
 - Current SPPIs for these services may not be sufficient to meet the demand for accurate GDP deflators.
- But sewerage services output in particular is produced mainly by the government in Korea.
 - Therefore, it is important to review whether some prices provided by the government or agencies are appropriate for the purpose of the SPPI, which is to collect market prices from producers.

**Thank you for your
attention!**

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