Analysis of government roles in garbage classification

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Abstract. Waste sorting management has been popular in foreign countries. China started late and has a low technical level. It is still in the development stage. This paper analyzes the theoretical problems of urban domestic waste classification management at home and abroad. Management provides a reference.

1. Research background
The amount and growth of waste in China is at a high level in the world, and more than one third of the cities have already encountered the crisis of garbage siege.

In order to solve the problem of urban garbage in China, in recent years, China has also implemented a number of policies and pilot work. Since July 1, 2019, the “Regulations on the Management of Domestic Wastes in Shanghai” has been officially implemented, marking the entry into the operational level of domestic waste separation in Shanghai. In addition, the relevant commissions have also formulated such documents as the “Guidelines for the Classification of Domestic Waste in Construction Sites” and the “Regulations on the Investigation of Violations of Domestic Waste Classification”. China has begun to implement the waste sorting policy in Shanghai. Although the current implementation has achieved some good response, there are some difficulties. Based on this, this paper discusses the role of government in waste sorting.

2. Literature review
Yu Jie (2010) divided the legislative process of classification and recycling of urban domestic waste into three stages: the embryonic stage of the 1980s and 1990s, the exploration stage of 2000 to 2006, and the development stage from 2007 to the present.

Wang Wei, Xu Min, and Song Wei (2014) believe that the law on waste classification, in addition to the “Solid Waste Law” promulgated in 2004, includes the 2002 Cleaner Production Promotion Law of the People’s Republic of China and the “Circular of the People’s Republic of China in 2008”. Economic Promotion Law.

Zheng Yimin (2009) on the basis of the research on the status quo of domestic waste source classification, clarified the government's dominant position in the implementation of classification policy, and proposed optimization suggestions for improving the law, strengthening management and introducing technology, but it did not add to the government's leading role. In-depth analysis does not classify roles. Rong Tingting and Ren Biao (2015) went one step further and clarified the relationship between the government and enterprises, the government and the market in the government-led research.

Wu Yu (2012) proposed to develop detailed classification standards, build incentives and supervision mechanisms and other measures to optimize government management. Lu Xianfeng (2013)
proposed to establish an induction mechanism such as legal regulation, government regulation, economic punishment and other external pressure mechanisms, ideological education, economic compensation, public opinion support, etc., to achieve benign management of waste classification. Yan Lijian, Dong Weijiang (2014) proposed the establishment of a reward and punishment mechanism for waste sorting and a fiscal policy based on the classification effect. Chen Xiaoyun and Zhang Tingting (2015) pointed out that policy product design, channel construction and public promotion are the operational skills of policy marketing.

Sun Qiang and Sun Xuyou (2014) pointed out that the unclear governance object, the broken governance mechanism and the unequal governance relationship seriously restrict the implementation effect of waste classification; Yang Fan (2016) proposed to strengthen policy construction, increase public participation and configure classification facilities. Countermeasures.

2.1. Domestic and foreign waste classification practices

2.1.1. Foreign Waste Sorting Practice. In foreign countries, the treatment of municipal solid waste mainly includes recycling, incineration and landfill. Among them, recycling accounted for 30%, incineration accounted for 14%, and landfill accounted for 56%.

Japan: Japan's garbage classification is very fine. It also aims to build a recycling-oriented society and establish a sound legal system for circular economy. In the launching process, Japan has clarified the requirements for the classification of domestic wastes and implemented the measures that are not classified, not shipped, and will be returned. At the same time, the law stipulates the sentence, the fine or both for littering and voluntary burning. The regulations ensure that residents are allowed to sort garbage according to requirements. The Japanese government has given credit loans to waste recyclers and sorters, and the government has used tax credits. In 2015, the proportion of domestic waste incineration in Tokyo was as high as 75%, landfill only accounted for 3%, and recycling took 20%. Every day, per capita living garbage is discharged by 0.8 kg.

United States: Most states in the United States use a deposit return system. For example, for toxic and hazardous substances such as lead-acid batteries, consumers can show the retailer's sales receipts to the retailer within 7~30 days of purchasing new batteries. Each old battery can be used. For $5 to $10, you can get this discount when you buy a new battery. The US garbage collection, handling, and disposal system is a market-oriented operation mode. The government generally adopts tax reductions and exemptions, grants, and incentives such as recycling credits to reduce the huge financial burden on the government. The use of market economy means to promote the recycling of waste resources and promote the development of the environmental protection industry.

South Korea: In 1986, South Korea enacted the Waste Management Law. In 1995, the revised version of the law began to divide waste into industrial waste and domestic waste, and involved waste sorting. South Korea began to implement garbage violations in 2000. The reward system is applied, and the reward amount can be up to 80% of the penalty amount. For the disposal of garbage, South Korea also has a special bill, which is managed by the local government to increase the income and welfare of the surrounding residents. The compensation is determined by the government and residents; for example, some waste incineration power plants are specially hired to live near the factory. A family woman served as a supervisor and implemented an ecological compensation policy for residents within 300 meters of the wall of the incineration plant, giving corresponding subsidies and electricity concessions, resulting in a rise in housing prices around the garbage incineration plant.

2.1.2 Foreign reference. Compared with Japan, the United States, and South Korea, which have established multi-level environmental governance systems and comprehensive environmental regulations, China's national and local level legislation is relatively lagging and abstract. For example, the implementation of key financial inputs, fee collection, process supervision, etc., has not yet been formulated. Therefore, it is urgent for the government to initiate the waste sorting legislation agenda, formulate policies and regulations in line with local development for all aspects of waste sorting, and
urge the deputies and CPPCC members to exercise their powers to participate in the administration of state affairs in a timely manner, and work together to classify domestic waste. Enter the legal agenda early, strengthen policy design, and introduce mandatory and binding laws and regulations and departmental regulations.

2.2 Domestic waste classification practice

2.2.1 Summary of domestic policies. Since the 18th National Congress of the Communist Party of China, the party and the state have paid more and more attention to ecological civilization, and listed ecological civilization as the overall distribution of the “five in one.” In particular, the 19th National Congress of the Communist Party of China pointed out for the first time that the construction of ecological civilization is a millennium plan for the sustainable development of the Chinese nation. In recent years, some representative policies and regulations promulgated by China have the following contents:

National level: In May 2017, the General Office of the National Development and Reform Commission and the General Office of the Ministry of Housing and Urban-Rural Development issued the “Circular on Soliciting Opinions on Promoting the Domestic Waste Garbage Classification System (Draft for Comment) in 2017; 2018 July, “The Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes (Revised Draft) (Draft for Comment)” was open for public comment;

Provincial level; On November 23, 2017, Guangxi Province issued the “Notice on the Work Plan of Guangxi Domestic Waste Classification System”; on September 17, 2018, Henan Province issued the “Implementation Plan for the Classification Management System of Domestic Waste in Henan Province”.

City and County Level: On January 7, 2016, the Suzhou Municipal People's Government issued Order No. 137, “Suzhou City Domestic Waste Classification Promotion Measures”; in March 2018, Shanghai “Shanghai Municipal People's Government Office Forwarded City Development and Reform Commission” Notice of the four departments on the establishment and improvement of the implementation opinions of the city's domestic garbage recyclables recycling system.

2.2.2 Analysis of typical cases in domestic waste classification. Shanghai: Taking Changde Mingyuan Community in Putuo District of Shanghai as an example, Tian Yizhi, secretary of the neighborhood committee, revealed that at the end of 2018, the neighborhood committee began to conduct preliminary investigation and publicity on waste sorting in Changde Mingyuan Community. “From the initial establishment of 3 garbage dumping points, In the existing garbage room, residents' awareness of garbage classification increased from less than 40% to 100%.” Tian Yizhi said frankly that when the super typhoon “Lizema” came to Shanghai, the neighborhood committee also deliberately extended the time for garbage disposal. Hours. According to the Shanghai Municipal Bureau of Greening and Municipality, the amount of recyclables recovered in Shanghai this year reached 4,400 tons per day, a five-fold increase from the end of 2018. The amount of wet garbage has reached 8,200 tons / day, an increase of 1.1 times compared with the end of 2018. The amount of dry waste disposal wa

Guangzhou: Take the R&F Dongdiwan community in Yuexiu District as an example. In 2005, the sanitation department installed 1,000 “food waste shredders” for residents in the R&F Dongdiwan community in Yuexiu District. Community pilot. However, the sanitation department traced that only 10% of households insisted on using the shredder. One was too troublesome, and the other was to pay an additional three to four yuan a month for electricity. Lv Zhiyi, director of the Guangzhou Environmental Sanitation Bureau, has also worked hard in the catering industry. He said: “I am afraid of having 'melamine' made of fertilizer, and I am afraid of having 'lean meat essence'. These should be considered before doing research. Clear.” Baolun Jun, the director of the Environmental Sanitation Division of the bureau, admitted at the time that the pilot had failed.
3. Government roles in garbage classification

3.1 The maker of technical standards
In order to avoid the threat of garbage siege, the Chinese government must formulate detailed rules for the classification of municipal solid waste, formulate corresponding economic, technical and social policies, strengthen provincial environmental management and urban environmental waste management, and realize the classification and treatment of legally-based waste.

3.2 Builders of the garbage collection system
At present, people's requirements for environmental quality are constantly improving. The service industry needs to deal with domestic garbage to a greater extent. This requires the government to increase investment in the environment, increase the management of domestic waste, build new cities, and establish a sound domestic waste management facility.

3.3 The founder of the liability system
Article 32 of the Regulations on the Administration of Domestic Wastes in Beijing stipulates: “The municipality implements the system of responsible persons for the classification of domestic wastes. The responsible persons for the classification of domestic wastes are determined according to the following regulations: urban residential areas, including residential quarters, alleys, streets and alleys. If property management is implemented, it shall be the responsibility of the property management unit; the self-managed unit shall be responsible for the self-management of the unit. The government can only implement a more detailed management of the waste classification if the responsibility system is strictly established and the responsibility is clearly defined.

3.4 Publicity educators of classified management
As a propaganda educator on the concepts and methods related to waste sorting, the government needs to do the following things: First, carry out the propaganda and education of the concept of domestic waste sorting. Second, develop rules on garbage collection and classification. Once again, increase the maintenance of the classification facility. The government needs to establish a responsibility system for waste sorting, clarify managers, and make waste sorting more specific and practical.

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