Improving Laws and Regulations to Promote Household Waste Classification - Based on the Perspective of Participating Subjects

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Abstract. Household Waste Classification is in full swing in China nowadays, and both central and local legislatures and governments have introduced appropriate laws and regulations to promote the process of waste classification. At present, laws and regulations are not perfect, facing three major difficulties: 1. Waste Classification is a new culture; 2. Residents can't directly realize the consequences of No Waste Classification; 3. Waste Classification is an individual behavior, which cannot reach the consensus of the masses. Therefore, laws and regulations must fully consider the influencing factors of Waste Classification, create an environment for Waste Classification, and promote residents to carry out this action. The influencing factors of Waste Classification are manifested through certain behaviors and attached to specific subjects. These subjects are the key actors who participate in Waste Classification, including residents, government, communities, enterprises, NGOs, and scavengers. By analyzing these key actors, we can find out the direction of improving laws and regulations more comprehensively, so as to promote Waste Classification.

Keywords: Waste Classification; Laws; Regulations.

1. Introduction

Waste is an appendage of urban development. With China's rapid economic development, the urbanization process is accelerating. The operation of cities and people make the annual birth of hundreds of millions of tons of waste. A large proportion of this waste is generated by urban residents. According to data published by the Ministry of Ecology and Environment, PRC, 'the amount of household waste generated in more than 200 large and medium-sized cities across China has increased from 161 million tons in 2013 to 234 million tons in 2019' [1]. More than 600 cities in China, two-thirds of them have fallen into the dilemma of 'waste siege'. 'Household Waste Classification is a scientific management method for the effective disposal of waste and for solving the problem of 'waste siege'. It is a scientific management method to solve the problem of 'waste siege'. People can pick out the recyclable waste and increase the resource value and economic value of the waste through waste classification. Other non-recyclable materials can be sorted and disposed of in appropriate ways, such as composting of food waste, and the incineration of sorted waste can produce less or no pollutants.

According to Law of the People's Republic of China on the Prevention and Control of Solid Waste Classification, the Household Waste Classification management system includes four links, i.e classified delivery, classified collection, classified transportation and classified processing. Among them, the source action of Household Waste Classification Delivery is of fundamental significance to Household Waste Classification Management, and the source classified delivery is the guarantee of subsequent Household Waste Classification processing. In 2017, the Implementation Plan of Household Waste Classification System issued by the Chinese government clearly stated that Household Waste Classification should be changed from advocacy to compulsory. On July 1, 2019, Regulations of Shanghai Municipality on Household Waste Management came into effect, which became a landmark event to promote the compulsory classification of household waste in China at the level of laws and regulations. Since then, local governments have also set up corresponding laws and regulations to implement compulsory classification of household waste. In 2020, Law of the People's Republic of China on the Prevention and Control of Solid Waste Collection was revised and

implemented, which clarified the implementation of the Household Waste Classification system by the state and the obligations of residents' Household Waste Classification. China regulates Household Waste Classification through laws and regulations, but these laws and regulations are not perfect at present, which is not conducive to the realization of Household Waste Classification.

The research goal of this paper is to point out a more comprehensive direction of improving laws and regulations, and promote residents to carry out Household Waste Classification. Method of literature review is applied in this reseach to explore studies on laws and regulations for promoting waste classification. Sources of materials include journal papers from CNKI, Chinese government website, newspaper. This paper will review the research on promoting waste classification by improving laws and regulations. After that, this paper will analyze the difficulties in the regulation of waste classification by laws and regulations, and explain the reasons for choosing the actors perspective to find the direction of perfecting laws and regulations. Finally, based on the perspective of key actors in the process of waste classification and delivery, this paper finds out the direction of perfecting laws and regulations in the field of waste classification and delivery, and puts forward corresponding suggestions.

2. Literature Review

The research on improving laws and regulations to promote waste classification can be divided into the following categories: 1). Emphasize the perfection of public participation rights. Construct the right guarantee mechanism of public participation with the right to know as the premise, the right to participate as the core and the right to supervise as the guarantee [2]. Emphasize the perfection of grass-roots autonomy system. Use the high interaction between community and residents to promote residents' participation in waste classification. Improve residents' recognition of household waste classification system through public participation [3]. 2). Emphasize the establishment of obligation system and improve the standard system of consumers' environmental legal obligations [4]; 3). Emphasize the clarity of the competent department of household waste classification and the responsible person of management [5]; 4). Emphasize the unification of classification standards [6]; 5). Emphasize the establishment of perfect reward and punishment system [7,8]; 6). Emphasize the perfection of waste classification except delivery. Promote the establishment of a perfect waste classification infrastructure and provide a good classification environment for residents' waste classification [9]; 7). Emphasize that laws and regulations should strengthen the leading role of the government and expand the government's management authority on waste classification [10]. Although this will reduce residents' participation in waste classification, the authority of the government will be improved, and it is more convenient to take compulsory measures against residents.

Although the research on these laws and regulations involves many fields and has achieved fruitful results, there are still defects. At present, the research on laws and regulations as the research object is insufficient. For example, when the author is looking for methods to promote waste classification related to laws and regulations, many methods in the field of laws and regulations are mixed with those in policies. In China, the concept of laws and regulations also belongs to policies, such as local laws and government regulations, which can be called both laws and regulations and policies. However, policies also include some party documents, speeches of government agencies and other parts that do not belong to laws and regulations, which leads to the lack of specific contents that laws and regulations need to be standardized and guided. In addition, it is clear that the research on laws and regulations is not in-depth, and there is still room for improvement.

The author thinks that this is because the current research fails to pay attention to the unique role of laws and regulations as the highest authoritative code of conduct in waste classification and delivery [11]. At the same time, researchers lack a comprehensive examination of the key actors in the process of waste classification and delivery, which leads to the neglect of the improvement of some laws and regulations, which is not conducive to promoting waste classification and delivery.

3. Improving Laws and Regulations

3.1 The difficulties in regulating waste classification by laws and regulations

What are ‘laws and regulations’? According to Article 2 of China's Provision on the Administration of Editing and Publication of Collections of Regulations: ‘For the Purpose of these Propositions,’ Collections of Regulations ‘means public publications edited into volumes, according to a certain order or classification, from laws, administrative regulations, departmental rules of the State Council (hereafter referred to as’ department Mental rules ‘), local regulations and local government regulations issued under state regulations.’ It can be seen that in China, ‘laws and regulations’ in the general context refer to laws, administrative regulations, local regulations and local government regulations [12]. As mentioned above, the concepts of ‘laws and regulations’, especially ‘regulations’ and ‘policies’ overlap, but the characteristics of ‘laws and regulations’ are that they are legally binding, and the implementation of laws and regulations is guaranteed by the national coercive force.

Laws and regulations face three major difficulties in the process of promoting waste classification: First, waste classification is a new culture in China. Although littering has been banned for a long time, ‘waste classification’ is a new concept that appeared at the end of last century. Before that, residents only need to throw all household waste into a trash can at will. Before 2017, even though the laws and regulations set the obligation of waste classification for residents, it was only advocacy. Residents will not bear corresponding responsibilities for failing to comply with this obligation. Therefore, in this short period of time, it is difficult for residents to accept this obligation and form habits.

Second, residents are unaware of the consequences of not classification waste. This is also one of the reasons why it is difficult to implement laws and regulations on waste classification. According to cognitive psychology, although people know how laws and regulations stipulate, actors' cognition and legal emotional experience will hinder them from abiding by the law. Residents will be more inclined to abide by the law after the good results brought by abiding by the law or the bad results brought by not abiding by the law are clearly experienced by residents [13]. However, although not classification waste will lead to serious consequences, the consequences are slow, and once the consequences appear, it is too late to regulate them. Therefore, it is difficult for residents to experience the consequences of not classifying waste, and it is difficult to have the psychology of complying with laws and regulations for waste classification.

Third, waste classification needs to regulate the smallest unit of residents in cities. Throwing waste is what every resident has to do every day. This decentralized behavior is difficult to be supervised centrally. When everyone doesn't abide by laws and regulations and don't sort waste, the phenomenon of ‘The law does not punish numerous offenders will appear. At the same time, waste classification, as a collective action, is faced with difficulties, that is, individuals often have a tendency of ‘hitchhiking’ when achieving collective goals. Although residents want the environment to be clean, they don't want to increase their burdens, preferring to wait for others to pay for their own benefits.

It is difficult to regulate the laws and regulations of waste classification, but laws and regulations play a normative role in the process of waste classification. As a national guarantee, the code of conduct is the most basic and authoritative for all social subjects. In addition to the obligation setting of waste classification, laws and regulations can be improved in many ways to promote waste classification.

3.2 Key actors that affecting the improvement of laws and regulations

The author thinks that perfecting laws and regulations in many aspects to promote waste classification needs to focus on the influencing factors of waste classification. There are many influencing factors of waste classification. The research on waste classification in China began around 1980s[14]. Up to now, scholars have analyzed various factors affecting waste classification, which are mainly divided into macro factors, such as government management, laws and regulations,

publicity and education, etc. and micro factors, that is, residents' awareness of environmental protection, moral sense, law-abiding awareness and so on. Micro factors are mainly driven by macro factors, so as to promote the realization of waste classification. Therefore, Therefore, it can be considered that waste classification is mainly driven by macro factors [15]. These macro-influencing factors are manifested through certain behaviors and attached to specific subjects, which are not only the key actors in the process of waste classification and delivery, but also the subjects that must be adjusted by laws and regulations. Therefore, this paper takes the key actors in the process of waste classification as the breakthrough point, looking for the places where laws and regulations can be improved, and will fully mobilize laws and regulations to adjust the influencing factors of waste classification, so as to achieve the purpose of promoting the realization of waste classification.

Based on previous studies on the influencing factors of waste classification, the key actors of waste classification and their behaviors affecting waste classification and delivery needed to be regulated by laws and regulations. Key actors and their influence in the domain of household waste management in China can be summarized as follows:

Residents: Waste classification and delivery is an obligation that needs to be set by law, which belongs to the end environmental legal obligation of consumers, that is, consumers should legally dispose of consumer goods that they no longer want to use or can no longer use. [4] However, the public participation theory illustrates the stimulating effect of public participation on residents' waste classification [16]. Therefore, the exercise of the right of public participation in waste classification and delivery is also an act that needs to be regulated by laws and regulations, so as to play its stimulating role in stimulating residents to actively participate in waste classification and delivery.

Legislature and government: Both legislature and government are the makers of laws and regulations. Their formulation behavior is also bound by laws and regulations. Based on China's national conditions and the public goods attribute of waste disposal, the government is the manager of waste classification [17]. Government management means is an important factor affecting waste classification [18]. The government's management behavior also needs to be restricted by laws and regulations. First of all, the division of management authority among government departments needs clear laws and regulations. Secondly, the reward and punishment measures and standards adopted by the government also need the provisions of laws and regulations. The government has no right to take law enforcement measures without legal basis. Finally, the government's supervision, rewards and punishments need to be regulated by laws and regulations. If regulatory measures are taken in violation of laws and regulations, the government should also bear legal responsibilities.

Enterprises: Enterprises play a role in ensuring infrastructure in the process of waste classification. For example, provide classified trash cans that meet the standards. Use the Internet to provide waste classification and recycling services, etc., and put them into subsequent collection, transportation and treatment, in which enterprises are also closely involved. The operation of enterprises is regulated by laws and regulations. Laws and regulations should play a role in stimulating the provision of products and facilities related to enterprise waste classification.

Community: Urban community is the main living space of the public, and it is also the main place where household waste is produced [19]. In waste classification, the community is the first manager of residents and the most important partner of the government's waste classification management. The division of functions and powers between the government and the community and the internal organization of the community need to be improved by laws and regulations.

NGOs have an irreplaceable position in the popularization, education and publicity activities of environmental awareness, and in the promotion and facilitation of public participation activities in the field of environmental protection. The behavior of NGOs is also regulated by laws and regulations. However, there are currently no laws and regulations for NGOs, which makes it difficult for these organizations to play their role in waste classification.

Scavengers: Scavengers refer to people who pick up waste as their source of livelihood. Its informal waste classification is a common feature of waste collection in developing countries. Urban scavengers pick out recyclable waste and sell them. Their role in waste classification and recycling

cannot be ignored [20]. However, at present, the management of scavengers by laws and regulations is absent, and the disorganization of scavengers prevents them from playing a positive role in waste classification.

In addition, campus education also has an important influence on waste classification. However, based on China's national conditions, these subjects and behaviors have strong dependence on the government and other subjects and behaviors, and there is no significance to discuss them separately.

3.3 Suggestions of improving laws and regulations to regulate waste classification

Based on the analysis of the key actors of waste classification, the direction of improving laws and regulations to promote the process of waste classification in China can be divided into the following aspects

For residents, a complete system of obligations to choose, use and dispose of consumer goods should be established [4]. Waste is essentially the surplus of residents' consumer goods. Residents should separate their waste and fulfill their disposal obligations. If residents are not bound by environmental protection requirements when choosing and using goods, they will not care whether their disposal behavior is environmentally friendly when disposing of them. Only through the process of consumption can residents have a deeper understanding of the significance of separating and disposing of their own waste.

The exercise of residents' participation right needs laws and regulations to regulate the legislature, the government and the residents together. The scope of the right to participate covers the whole process of waste classification and management, that is, the legislative process of the legislature and the government, and the supervision of the government's law enforcement. The exercise of right is also diversified, including voluntary service, hearing, debate, appealing and reporting, applying for information disclosure and etc. [2]. At present, the laws and regulations aiming at the public participation procedures are more advocating and principled, and should be based on the principle of public participation. First of all, it is necessary to define the subject qualifications of public participation; Second, make it clear that government departments are responsible for exercising citizens' right to participate in public affairs; Thirdly, it is necessary to further enhance the operability in the procedures, ways and rules of public participation; Fourthly, provide certain incentive measures to provide normative support for the exercise of public participation rights, so as to improve the residents' recognition of the waste classification system.

For government agencies, first of all, laws and regulations should clearly define the department main body responsible for the management authority and responsibility of waste classification treatment. At the same time, the division of responsibility between the government and the community in waste classification should also be made clear in laws and regulations, because the community does not have the public authority matching the strict responsibility. Second, the measures taken by the government to enforce the law, such as incentives or penalties and standards. Research shows that punitive measures are more effective in promoting waste separation than incentives [20], and the laws and regulations can strengthen the establishment of punitive measures, but the specific measures and standards also need to fully consider public opinion. Public understanding of the measures will balance the burden of punitive measures on residents. Finally, based on the current local demand for waste disposal and the establishment of laws and regulations, the implementation of waste classification standards by the government is relatively stable. The author thinks that there is no need to rush to unify.

For enterprises, laws and regulations should set more tax incentives and subsidies for enterprises that provide products for waste classification and promotion. China's enterprise income tax law stipulates that enterprises engaged in qualified environmental protection, energy saving and water saving projects are exempted from enterprise income tax from the first to the third year, and halved in the fourth to the sixth year. Waste management laws and regulations in various countries around the world encourage enterprises to develop products that promote waste classification. However, in the field of waste classification, it is not clear which products can get what discount. The author

believes that corresponding laws and regulations should be promulgated as soon as possible. Not only can enterprises dealing with waste be encouraged, but also the enterprises that use Internet technology to provide supervised products for waste classification or recycling services should be included in the scope of subsidies or concessions given by laws and regulations.

For the community as a social organization, the laws and regulations should not establish strict responsibilities and obligations for it, because it does not have the corresponding power, and the direction of improving the laws and regulations of the community should be the expansion of its rights (such as the right to question the community organization and organize activities) and the stability of the internal organization of the community.

Non-governmental organizations and scavengers are a relatively neglected laws and regulations at present. Laws and regulations should pay attention to both in the construction of environmental protection and the cause of waste separation in a unique role. The first is to develop special management norms. At present, the legislation of non-governmental organizations overemphasizes government management, which leads to the development of non-governmental organizations' activities facing many obstacles [21]. In the issue of waste classification, laws and regulations should give NGOs more operating space. Paying attention to the natural waste separation behavior of scavengers, laws and regulations should make organizations for scavengers to carry out life care and encourage waste separation-related enterprises to accept scavengers.

4. Conclusion

Waste classification is a challenging undertaking, and its laws and regulations need to be well planned. There are many factors affecting waste classification, and laws and regulations should be improved and adjusted in many aspects, so as to play its due role in China's waste classification. Based on the perspective of key actors in waste classification, this paper puts forward the following improvement directions: 1. Improve the consumer obligation system for residents; 2. Refine the scope, mode and procedure of public participation right; 3. Clarify that the government is the main body of responsibility and clearly divide the management power and responsibility of government departments; 4. Provide economic incentives for enterprises that provide infrastructure and supervision equipment for waste classification. 5. Expand community rights and stabilize the internal organization of the community; 6. Formulate special management norms for NGOs and scavengers.

In this paper, combined with the influencing factors of waste classification, the author considers which aspects of laws and regulations should be adjusted to promote the realization of waste classification. This paper can only put forward directional opinions, lacking more detailed research on laws and regulations. At the same time, this paper compares the influence degree of laws and regulations on other factors in waste classification, so as to find out which laws and regulations are more conducive to the realization of waste classification.

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