

Implementation of government regulation on Disposable Plastic Reduction at Surabaya

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Abstract. Plastic has the advantage of being durable, cheap and easy to get everywhere and we are increasingly dependent. And most of the plastics we use are single-use plastics, as a result, if they are not managed properly, they will become waste and have a negative impact on the environment. With the decomposition period which is too long, which is 100-500 years, this will be a problem if it is not managed properly, such as being burned which has a bad impact on health or being disposed of carelessly in the end until it reaches the sea and will cause damage to the marine ecosystem. The issuance of Mayor Regulation No. 16 of 2022 which regulates the reduction of single-use plastic in the city of Surabaya is expected to maintain environmental sustainability and reduce the generation of waste entering the Final Processing Site. The purpose of this study is to know or analyze the extent of the implementation of Mayor Regulation No. 16 of 2022 regarding the reduction of single-use plastic in the city of Surabaya. The research method used is normative juridical, namely by analyzing problems based on applicable regulations and also the literature that discusses the problem. And the results of this study are that it can be stated that these regulations, namely as regulations for reducing single-use plastics, can be obeyed and carried out well by several parties, namely from the community, business actors, modern shops, retail, restaurants, hotels, supermarkets. And there needs to be socialization, and monitoring for the enforcement of this regulation so that it is carried out optimally.

Keywords: Environmental Law, Plastic Waste, plastic hazard

1. Introduction

Garbage is the residual result of daily human activities and is no longer used according to [1] and that Indonesia is the second largest contributor of plastic waste out of 129 countries in the world after China [2]. With the average waste generation of Indonesians around 0.7 kg per day per person, it is estimated that the amount of waste in Indonesia will reach 175,000 tons per day or equal to 64 million tons / year (data from the Ministry of Environment 2019). Waste in Indonesia can be classified into two types, namely organic waste and inorganic waste, and here plastic is included in the category of inorganic waste which is very difficult to decompose.

Garbage is a very big problem in the world's big cities, including this is a problem in Indonesia and a cultural impact because it can have an impact on several sides of life [3]. With the advancement of technology, we are faced with the problem of plastic. Indonesia is one of the countries with a high population and has a consumptive character of food ingredients [4]. With a consumption pattern that is increasing day by day, it also means an increase in the amount of waste production. And we often encounter our habit, namely that waste is not managed properly and there is no sorting, so that it causes garbage to accumulate for days and results in an unpleasant odor and unpleasant to look at. In urban areas, especially the problem of solid waste, it can be caused by several things, such as population growth which is increasing year by year, economic growth in the community, community behavior patterns and no less important is consumption patterns in the community. Various technologies and methods have been used to handle this waste because Indonesia is already in a waste emergency position [5]. And it's very natural that from the past until now, the waste problem has become a problem that is constantly being discussed. In addition, the impact of plastic that we encounter a lot is that we often see plastic waste being disposed of carelessly or the simplest is that it is burned and will release substances that are very dangerous and toxic to the environment and ourselves. The content of plastic waste that enters the environment takes a long time. If the waste enters the river flow, then it will enter the sea by ocean currents. Rivers are considered a major contributor to plastics and microplastics in the ocean. And when the plastic waste is thrown away and accumulates in the ocean, it will pollute the ocean and damage marine biota [6].

The use of plastic bags is one of the causes of waste generation. Data from the Surabaya City Environment Agency. Around 1,800 tons of Surabaya's waste per day goes to the TPA (final management site) in Benowo, about 111 tons per day, which is plastic waste. With so much plastic waste and from year to year the consumption of plastic is said to be increasing, it is related to this that the Surabaya City Government seeks to suppress the use of plastic bags, especially plastic which is usually used for shopping plastic or what we usually call single-use plastic. And in March 2022, the Surabaya City government issued Mayor Regulation No. 16 of 2022 concerning Disposable Plastic Blocking and this applies to Traditional Markets, Malls, Retail.

Along with the development of the implementation of the Mayor's Regulation No. 16 of 2022 concerning the restriction of single-use plastics, it has not run optimally, in other words, the extent of the authority of the Surabaya city government and the extent of guidance, monitoring and supervision of business actors in the implementation of single-use plastic restrictions, then what are the obstacles? The problem faced by the Surabaya city government is the implementation of the mayor's regulation for its implementation.

2. Research Method

The method used is research through interviews which are primary data or known as field research. The data needed in this study are primary and secondary data. Primary data were obtained through field research, using interview techniques with several sources. Data collection is intended to dig up data and information. Determining the location of observations and determining respondents is more focused on the relevance to environmental problems based on the main issues

3. Result

We cannot deny that plastic actually has many uses, in society it is very much needed and needed because plastic is cheap, light, durable and easy to use and can be found everywhere in everyday life. Because people are getting more and more dependent and more and more in need of what people end up using plastic. With the increasing use and need for plastic there is not balanced with public awareness about the language of plastic if it is not managed properly, and the most is single-use plastic and in the form of packaging [8].

Data from [9] shows that the production of plastic in the world can reach around 400 million tons per year and this is the largest in the form of plastic bags, there are about 36% or about 144 million tons and they are used by the community only once and then thrown away so that there is 50% of the total amount. waste is plastic waste. There are some underlying recommendations for handling and reducing single-use plastics as follows: a. improve the waste treatment system, b. alternatives to single-use plastic, c. changes in behavior in the community, d. there is a strategy for change and handling of the reduction of single-use plastics.

A. The Effectiveness of Disposable Plastic Restriction Regulations

The involvement of several sectoral parties is very important for the management of plastic waste which is not easy, cross-sectoral from the government, private sector, business actors and the community have a very important role in this matter. According to [10] shows that the proper separation of waste from the source of waste, namely from households, is not carried out properly, so waste from households is mixed and then taken to a waste depot or temporary disposal site and all of it is transported to the TPA, even worse, some household waste is not collected on site. trash, but left alone, burned, and sometimes some go to the river. On the other hand, our recycling process turns out to be a very long process from the beginning of the waste generated to the recycling factory, from the community side, people are also not used to it or not many people sort waste from the source.

With the implementation of the mayor's regulation No. 16 of 2022 regarding the reduction of single-use plastics (PERWALI 16 - 2022 | JDIH SBY, nd) The hope is for environmental sustainability and to reduce waste generation for Surabaya residents in the Benowo TPA. The main targets of the mayor's regulation are Modern Markets, Retail, Supermarkets, Hotels, Restaurants and Traditional Markets. Through this regulation, it is expected to reduce the use of single-use plastic, and the existence of the Mayor Regulation encourages the enthusiasm and seriousness of the Surabaya City government and various parties in reducing single-use plastics and dealing with plastic waste in Surabaya City, both from the business side and the Surabaya City government.

B. Obstacles faced for the implementation of the mayor's regulation

The obstacles faced by the Surabaya City government in implementing the Surabaya Mayor's Regulation No. 16 of 2022 regarding the restriction of single-use plastic which will be implemented from March 9, 2022 are indeed extraordinary, especially in this case, there are pros and cons to this regulation, especially consumers, namely mothers. -Mothers who don't want to bother bringing their own cloth bags who are used to bringing their own cloth. But in this case, the Surabaya city government always conducts socialization to producers, especially retailers and to the public continuously, and at the time of socialization there are producers in this case retailers who refuse or ask for a delay because they have already bought plastic and will spend plastic stock.

Actually, the Ministry of Environment and Forestry has implemented a trial of plastic reduction efforts by paying a fee which at that time was implemented starting on February 21, 2016 which was Rp. 200, - and that too drew protests from several circles because people were used to being given and given it for free by producers. or a shop and there is a protest because they feel they have benefited by paying that amount, namely retail or shop. The purpose of the trial is to reduce single-use plastic and it is hoped that people will bring their own cloth bags when shopping and can reduce plastic waste to the maximum [12].

Likewise, the implementation of single-use plastic reduction regulations in the city of Surabaya has experienced some obstacles and most of them have not been implemented in all shopping centres. Especially in this case is a traditional market which is very difficult to implement because the most traditional markets actually produce single-use plastic. Only the modern market and retail can simultaneously implement the implementation of the single-use plastic restriction.

The Surabaya city government indeed recommends and provides solutions to consumers, namely to bring their own cloth bags, but what becomes problematic is also when the buyer buys goods that exceed the capacity of the bag he is carrying, some shops or retailers have prepared alternative ways, namely preparing cardboard for free or there are also provides a larger shopping bag but by buying.

In accordance with the existing SOP, when the buyer is at the cashier, the cashier must ask if the buyer brings his own cloth bag, if he doesn't bring one, there are several alternatives, namely by buying a cloth bag that has been provided and the second one being forced to bring it without plastic.

And on the one hand, there are still many people who don't understand and don't understand the application of these regulations because there are still many of them when they shop, they still use and ask for plastic at the cashier, and especially those in traditional markets who are still unable to fully implement these regulations, even in the local market. modern market Some of the tenants still use single-use plastic. From the side of the Surabaya city government, there must also be monitoring and evaluation and the most important thing is the incessant socialization of retail and the community, because in this case the regulation does not include a fine if it is from retail or self-help and other actors if they do not apply the regulation.

Judging from the description, it can be seen that the application of the mayor's regulation regarding the reduction of single-use plastic in Surabaya can be applied either only at a few points, namely in retail areas, supermarkets and malls, but this regulation still cannot be implemented in traditional markets, restaurants or restaurants. Therefore, the socialization and enforcement of these regulations must continue to be echoed by the government or by other married parties.

4. Conclusion

The characteristics of plastic which is an organic waste and is a material that is very difficult to decompose, is toxic and pollutes the environment and requires a very serious effort to handle it. Law of the Republic of Indonesia No. 18 of 2008 concerning waste management as a legal regulation for environmentally sound waste management but does not yet regulate environmentally friendly plastics. Also organic waste management could be done as liquid and granule fertilizer [13]-[15]

Mayor's Regulation No. 16 of 2022 concerning the reduction of single-use plastics has been complied with and implemented by business actors such as supermarkets, retail and modern stores, but in reality, there are also some targets who have not been able to apply these regulations, especially and this is the traditional market.

It is recommended here that there is a need for socialization and law enforcement on the application of Mayor Regulation No. 16 of 2022 so that the regulation can run well and massively besides that monitoring and evaluation must also be carried out for future steps so that the application of this regulation can be implemented optimally.

Reference

- [1] Y. K. Blolo, "Implementasi kebijakan pengurangan penggunaan kantong plastik di Kota Denpasar," *SOROT*, vol. 16, no. 1, p. 13, Apr. 2021, doi: 10.31258/sorot.16.1.13-24.
- [2] J. R. Jambeck *et al.*, "Plastic waste inputs from land into the ocean," *Science (80-.)*, vol. 347, no. 6223, pp. 768-771, Feb. 2015, doi: 10.1126/science.1260352.
- [3] R. W. Aji, "STRATEGI PENGELOLAAN SAMPAH RUMAH TANGGA DI KABUPATEN CILACAP JAWA TENGAH," *AmaNU J. Manaj. dan Ekon.*, vol. 2, no. 2, Sep. 2019.
- [4] M. Ed, "THE EFFECT OF GOVERNMENT POLICY ON USING FEWER PLASTIC BAGS TOWARDS SOCIETY ' S AWARENESS OF GOING GREEN," 2016.
- [5] J. Sahil, J. Sahil, M. H. I. Al Muhdar, F. Rohman, and I. Syamsuri, "Sistem Pengelolaan dan Upaya Penanggulangan Sampah Di Kelurahan Dufa- Dufa Kota Ternate," *J. BIOEDUKASI*, vol. 4, no. 2, pp. 2301-427, Oct. 2016, doi: 10.33387/bioedu.v4i2.160.
- [6] C. J. Moore and G. L. Lattin, "Quantity and type of plastic debris flowing from two urban rivers to coastal waters and beaches of Southern California *," no. December 2015, 2016, doi: 10.5894/rgci194.
- [7] P. Pencemaran Sampah Plastik, G. Deyana Wahyudin, and A. Afriansyah, "Penanggulangan Pencemaran Sampah Plastik Di Laut Berdasarkan Hukum Internasional," *J. IUS Kaji. Huk. dan Keadilan*, vol. 8, no. 3, pp. 529-550, Dec. 2020, doi: 10.29303/IUS.V8I3.773.
- [8] D. L. T. BEYNON, "Plastics Packaging," *Int. J. Dairy Technol.*, vol. 25, no. 1, pp. 9-17, 1972, doi: 10.1111/j.1471-0307.1972.tb01123.x.
- [9] U. N. E. Programme, "Single-Use Plastics: A Roadmap for Sustainability (rev. 2)," 2018.
- [10] A. Pertiwi, S. M. P. Kiky, B. Wiwik, P. Ratna, P. S. Budi, and R. Arya, "Preliminary Study on Plastic Waste Handling in Semarang City - Indonesia: Estimated Generation and Existing Management," *E3S Web Conf.*, vol. 73, p. 07008, Dec. 2018, doi: 10.1051/E3SCONF/20187307008.
- [11] "PERWALI 16 - 2022 | JDIH SBY." .
- [12] A. Dwi, A. K. Penelitian, D. Pengembangan, and K. Pati, "PENERAPAN KANTONG PLASTIK BERBAYAR SEBAGAI UPAYA MEREDUKSI PENGGUNAAN KANTONG PLASTIK," *J. Litbang Media Inf. Penelitian, Pengemb. dan IPTEK*, vol. 12, no. 1, pp. 32-40, Dec. 2016, doi: 10.33658/JL.V12I1.50.
- [13] L. Abarca, G. Maas, and W. Hogland, "Solid waste management challenges for cities in developing countries," *WASTE Manag.*, 2012, doi: 10.1016/j.wasman.2012.09.008.
- [14] I. S. Dewi, M. N. Kusuma, and T. Pramestyawati, "A function of Bioslurry Organic for Solid Fertilizer," *J. Appl. Sci. Manag. Eng. Technol.*, vol. 1, no. 1, pp. 29-32, 2021.
- [15] H. F. Fadilah, M. N. Kusuma, and R. D. Afrianisa, "Pemanfaatan bioslurry dari digester biogas menjadi pupuk organik cair," *Semin. Nas. Sains dan Teknol. Terap. VII 2019*, pp. 513-518, 2019.