

## ANALYSIS OF PERWALI NO. 16 OF 2022 POLICY IN REDUCING PLASTIC BAG USAGE IN SURABAYA CITY

**Muhamad Tri Samudera<sup>1)\*</sup>**

*UPN Veteran Jawa Timur, Indonesia<sup>1)</sup>*

*Email: 22041010066@student.upnjatim.ac.id\**

### Article History

Received: 17 January 2025

Accepted: 1 February 2025

Published: 30 April 2025

### Abstract

This study analyzes the implementation of Surabaya Mayor Regulation No. 16 of 2022, aimed at reducing single-use plastic bags. Enforced since April 9, 2022, the policy targets shopping centers, supermarkets, traditional markets, and restaurants. Using a descriptive quantitative approach, data were gathered through surveys of 25 business actors and 40 residents during an internship program with the Surabaya City Government, supported by secondary data from the Environmental Agency and the 2021–2026 RPJMD document. Findings show that while 83% of business actors are aware of the regulation, 72% still use plastic bags due to economic concerns, fear of declining sales, and customer complaints. On the other hand, 89% of residents prefer to bring their own shopping bags, indicating high environmental awareness. The main challenges lie in limited enforcement and the lack of affordable eco-friendly alternatives, especially in traditional markets. The study recommends stronger public outreach, tax incentives for businesses switching to eco-friendly bags, stricter enforcement, continued education on plastic waste impacts, and greater availability of affordable alternatives to accelerate the shift toward sustainable bag usage in Surabaya.

**Keywords:** Public Policy, Plastic Waste Reduction, Environmental Governance, Regional Regulation, Surabaya.

### A. INTRODUCTION

Surabaya City as one of the metropolitan cities in Indonesia faces serious problems in waste management, especially plastic waste. Based on data from (Surabaya City Environmental Service, 2024), the amount of plastic waste generated in this city reached 111,362 tons in 2022, which is equivalent to 17.1% of the total waste generated. Plastic waste has the characteristics of not being easily decomposed, can produce toxic substances during the processing process, and has the potential to be carcinogenic, so it takes hundreds of years to decompose naturally. If not handled properly, the accumulation of plastic waste can cause ecosystem damage, pollute the environment, and worsen sanitation problems in urban areas..

As an effort to overcome this problem, the Surabaya City Government has stipulated Mayor Regulation (Perwali) No. 16 of 2022 concerning the Reduction of Plastic Bag Use on April 9, 2022. This policy aims to reduce plastic waste by prohibiting the use of single-use plastic bags in various business sectors, including shopping centers, traditional markets, supermarkets, and restaurants. With this regulation, it is hoped that the public and business actors can switch to using environmentally friendly shopping bags, as well as increase awareness of the importance of more sustainable waste management.

After one year of implementation, the Surabaya City Environmental Agency reported that there was a decrease in plastic waste generation of 1.5 to 2 tons per day. However, there

are still various challenges in implementing this policy, such as minimal socialization, low compliance of some business actors, and the lack of alternative environmentally friendly shopping bags, especially in traditional markets. Therefore, it is important to analyze the effectiveness of Perwali No. 16 of 2022 to determine the extent to which this policy has been successfully implemented and to provide strategic recommendations to optimize its impact on the environment and society.

Several cities in Indonesia have implemented policies to reduce the use of single-use plastic bags with varying results. In Jakarta, the implementation of Governor Regulation Number 142 of 2019 showed a decrease in plastic bag use of up to 82% after the regulation was enacted. This is based on a survey conducted by the DKI Jakarta Environmental Service together with the Indonesian Plastic Bag Diet Movement in December 2020.



Figure 1. Officers promote the use of environmentally friendly shopping bags at Grand Indonesia Mall

Source: antaranews.com

Meanwhile, in Denpasar, the implementation of Mayor Regulation Number 36 of 2018 has succeeded in significantly reducing the use of plastic bags. Five months after implementation, there was a 99.60% decrease in the use of plastic bags in modern stores and shopping centers. In addition, in traditional markets and other businesses, the decrease reached 54.26% and 86.27%, respectively.

However, despite the significant decrease, challenges in implementing this policy remain. Research by (Wirati, 2020) regarding the implementation of Denpasar Mayor Regulation Number 36 of 2018 identified several inhibiting factors.

Such as the lack of environmental support, including social and cultural aspects, as well as community participation in complying with regulations, limited resources, both human and non-human resources, that support policy implementation, limited capabilities of implementing agents, including bureaucratic structures, norms, and work patterns that are not yet optimal.



Figure 2. Socialization of plastic waste reduction in Denpasar City  
Source: denpasarkota.go.id

This study emphasizes the importance of awareness and joint commitment between the government, non-governmental organizations, and the community to overcome the problem of plastic waste. From these various studies, it can be concluded that the success of the plastic bag reduction policy in Indonesia is influenced by several key factors. Such as, effective law enforcement, strict supervision and sanctions against violations of regulations, community support and participation: Awareness and active involvement of the community in reducing the use of plastic bags. Availability of environmentally friendly alternatives, Provision and accessibility of environmentally friendly shopping bags as a substitute for single-use plastic bags (Abbas et al., 2024).

Analysis of Surabaya Mayor Regulation Number 16 of 2022 is important to understand the extent to which this policy has been successfully implemented and to provide strategic recommendations to optimize its impact on the environment and society. The novelty of this study lies in its focus on Surabaya, providing empirical data related to business actor compliance and community adaptation to the policies implemented. This study aims to analyze the impact of the policy on the performance of related sectors and community responses (Adha 2024). The urgency of this study is to identify weaknesses in policy implementation, as well as to provide recommendations that can improve the effectiveness of future policies. Thus, this study is expected to provide a significant contribution to better decision-making in the development and management of policies in Surabaya (Irwansyah & Ismayanti, 2024).

Research on plastic bag reduction policies has been widely conducted in various cities in Indonesia, such as Jakarta and Bali. However, studies that specifically discuss the effectiveness of Perwali No. 16 of 2022 in the city of Surabaya are still very limited. Surabaya as a metropolitan city with more than 3 million residents has unique social and economic dynamics. With a high level of consumption, the plastic bag reduction policy in this city requires further analysis to understand the extent to which this regulation has been implemented and accepted by the community and business actors. This study offers novelty in several key aspects. First, this study focuses on the city of Surabaya, which has not been widely explored in plastic reduction policy studies. This city has the characteristics of rapid urbanization, so the success of the policy in Surabaya can be a reference for other regions that want to implement similar policies (Hasid et al., 2022). Second, this study uses an empirical approach based on primary data, by collecting surveys from 25 business actors and 40 residents of the city of Surabaya. This approach allows the study to dig deeper into how this

policy is implemented in the field, unlike previous studies that relied heavily on secondary data (Solehudin, 2024).

In addition, this study also examines the compliance of business actors in implementing this policy, including the challenges they face in replacing plastic bags with environmentally friendly alternatives. Thus, this study not only assesses the effectiveness of the policy but also tries to understand the factors that influence the success and failure of this policy at the local business level (Taali & Maduwinarti, 2024). On the other hand, this study also explores the community's adaptation to the policy, including the extent to which they are willing to bring their own shopping bags and what are the main obstacles in changing shopping habits (Nugroho et al., 2020).

Furthermore, this study compares with similar policies in Jakarta and Bali, which have previously implemented plastic bag reduction regulations. By comparing the challenges and successes in various cities, this study is expected to provide insight into the key factors that influence the effectiveness of plastic bag reduction policies in Indonesia (Koestoer & Setiowati, 2023). The implementation of Perwali No. 16 of 2022 is a strategic step by the Surabaya City Government in dealing with the increasing problem of plastic waste. However, although this policy has been implemented since April 2022, its effectiveness still needs to be analyzed thoroughly. This analysis will explore the dynamics of plastic waste generation in Surabaya and the effectiveness of the policy in reducing it. Although there are indications of a decrease in the volume of plastic waste per day, the proportion of plastic waste to total waste is still quite significant. Therefore, further studies are needed to assess the extent to which the plastic bag reduction policy has had a real impact on overall waste management (Prasetyo & Arifin, 2018).

In addition, the level of compliance of business actors in implementing this policy is an important aspect that needs to be analyzed in more depth. Although most business actors are aware of the regulations that apply, many still use plastic bags in their operations (Suriyati, 2025). Factors such as concerns about declining income, consumer resistance to paid eco-friendly bags, and limited more economical alternatives are the main obstacles that need to be considered. These structural and economic challenges show that the success of the policy depends not only on regulations alone, but also on the readiness of the business ecosystem to adapt to change.

From the community's perspective, it is important to assess the extent to which they understand this policy and its impact on the environment. Although many residents are aware of the regulations regarding plastic bags, their awareness of the urgency of the plastic waste problem still needs to be improved (Fadillah et al., 2024). Education and socialization of the policy are crucial aspects that must be strengthened so that the community does not just comply with the rules, but also understands the reasons behind the policy. Thus, this analysis aims to provide a comprehensive picture of the effectiveness of the policy, implementation challenges, and strategies that can be applied to increase awareness and compliance in efforts to reduce the use of plastic bags (Tarigan, 2024).

Lack of supervision and evaluation from the government is also an important factor that needs to be considered. Previous studies have shown that plastic bag reduction policies often fail due to lack of supervision and sanctions for violators. Several business actors in Surabaya admitted that inspections from Satpol PP were rarely carried out, so many shops still secretly use plastic bags (Awaluddin et al., 2024). Therefore, this study also seeks to identify weaknesses in the monitoring and enforcement mechanisms of the policy, as well as provide recommendations that can help the government strengthen the implementation of this regulation.

Based on these urgencies, this study has several main objectives. First, to analyze the effectiveness of the implementation of Perwali No. 16 of 2022, by measuring the level of compliance of business actors and its impact on reducing plastic waste in the city of Surabaya. Second, this study aims to identify challenges in implementing the policy, both from the perspective of business actors and the community. Third, this study aims to analyze the level of public awareness and adaptation to this policy, including their reasons for choosing or rejecting the use of environmentally friendly shopping bags.

Ultimately, this study aims to provide concrete recommendations for the Surabaya City Government in improving the effectiveness of this policy. The recommendations provided will include strategies for increasing socialization and education, strengthening supervision and sanctions, and innovative solutions to help business actors switch to more environmentally friendly shopping bag alternatives. Thus, the results of this study are expected to contribute to helping the Surabaya City Government achieve its target of reducing plastic waste more effectively and sustainably.

## **B. LITERATURE REVIEW**

Public policy analysis is a complex field, encompassing the process of policy formulation to implementation and evaluation of its impact on society. Various approaches and concepts are used to understand policy dynamics, including those described in two books by Edi Suharto and Dr. Joko Widodo, M.S.

Edi Suharto in his book *Public Policy Analysis: Practical Guide to Reviewing Social Problems and Policies* (2020) states that public policy analysis involves not only identifying problems but also determining appropriate solutions. Suharto suggests using a practical approach to evaluate existing social problems and policies. This book focuses on understanding the relevant social context and the social impact of the policies implemented. In addition, Suharto also emphasizes the importance of a participatory approach in social policy analysis, where stakeholders play an important role in voicing their needs and interests (Suharto, 2020).

Meanwhile, Dr. Joko Widodo in *Public Policy Analysis: Concepts and Applications of Public Policy Process Analysis* (2020) offers a more comprehensive theoretical framework in policy analysis. Widodo discusses various basic concepts such as agenda-setting, policy formulation, and policy implementation. In his book, Widodo emphasizes the importance of understanding the policy process that involves many actors and factors, both political, social, and economic. This book also discusses the application of theory in the context of public policy in Indonesia, providing readers with a guide to analyzing policies by considering existing political dynamics and social diversity (Widodo, 2020). Both books provide in-depth insights into public policy analysis from different but complementary perspectives. Suharto focuses more on practical and contextual approaches in studying social policy, while Widodo provides a broader and more applicable theoretical framework to analyze the public policy process more holistically. Both are very relevant in the study of policy analysis to reduce the use of plastic bags, where the policy requires not only an evaluation of social and economic impacts, but also an in-depth analysis of the policy process itself.

In addition, research by (Halim and Nafi'ah, 2023) evaluated the implementation of Surabaya Mayor Regulation No. 16 of 2022 at Pabean Market, Surabaya. The results showed that the policy has not been running optimally, as indicated by the large number of business actors who still use plastic bags. Factors such as lack of socialization, minimal alternatives to replace plastic, and weak supervision are the main obstacles in implementing this policy (Halim & Nafi'ah, 2023). Meanwhile, (Santosa, 2024) in his evaluation of the plastic waste

control policy in Semarang City found that although similar regulations had been issued, their implementation had not been effective. This is due to the lack of supervision and lax sanctions against violations, so that the use of single-use plastic is still widespread (Santosa, 2024). These findings highlight the importance of an in-depth evaluation of the policy to reduce the use of plastic bags, especially in the context of implementation and enforcement in the field.

### **C. RESEARCH METHODOLOGY**

This study uses a descriptive quantitative approach method to analyze the implementation of Perwali No. 16 of 2022 concerning the reduction of plastic bag use in the city of Surabaya. This approach was chosen because it is able to provide a clear picture of the level of awareness, adaptation, and challenges faced in implementing the policy. Data were collected from primary and secondary sources to obtain a more comprehensive understanding (Surwono, 2021). Primary data were collected through surveys and explanatory processing conducted during an internship program with the Surabaya City Government. This survey involved 25 business actors from various sectors, such as shopping centers, supermarkets, traditional markets, and restaurants, as well as 40 residents who were consumers at various shopping points. This survey aims to determine the level of business actor compliance with the policy, public awareness in reducing the use of plastic bags, and the obstacles faced in its implementation. Explanatory processing is used to explore the factors that influence the effectiveness of the policy based on direct experience in the field (Alir, 2005).

In addition to primary data, this study also uses secondary data obtained from the official report of the Surabaya City Environmental Service and the 2021-2026 Regional Medium-Term Development Plan (RPJMD) document. This secondary data provides a broader perspective on environmental policies implemented by the local government and long-term targets in plastic waste management in Surabaya. Data analysis was carried out using descriptive statistics to identify trends and patterns from the survey results. In addition, this study also refers to the policy effectiveness evaluation framework to assess the extent to which this policy has been successfully implemented and whether there are factors that need to be improved so that its implementation is more optimal in the future.

### **D. RESULT AND DISCUSSION**

#### **Implementation of Surabaya Mayor Regulation No. 16 of 2022**

Mayoral Regulation (Perwali) Number 16 of 2022 is a policy that aims to support the reduction of single-use plastic waste in the City of Surabaya. Enacted since April 9, 2022, this Perwali targets the shopping center, supermarket, traditional market, and restaurant sectors as the main actors in implementing the transition from using single-use plastic to environmentally friendly bags. This policy aims to reduce the negative impact of plastic waste that is difficult to decompose on the environment and health. One of the important points in Perwali No. 16 of 2022 is the obligation for business actors to replace single-use plastic bags with reusable bags, such as bags made of cloth, paper, or other biodegradable materials. The implementation of this regulation is a concrete step by the Surabaya City government in responding to the increasing amount of plastic waste that threatens the sustainability of the ecosystem and worsens the waste problem in the city. Shopping centers, supermarkets, traditional markets, and restaurants as places of direct interaction with consumers are expected to be examples of the use of environmentally friendly bags.

For business actors, the implementation of this Mayoral Regulation requires them to adapt to new policies, which include the procurement of alternative bags and consumer

education on the importance of switching to environmentally friendly bags. In addition, this regulation also includes strict supervision from the local government on the implementation of this regulation in the field. Business actors who do not comply with this regulation may be subject to administrative sanctions, such as reprimands or fines, as an effort to enforce the successful implementation of the policy. Mayoral Regulation No. 16 of 2022 is not only a regulation to reduce plastic waste, but is also part of the Surabaya city government's efforts to reduce its carbon footprint and create a more environmentally friendly city. Through this policy, it is hoped that the public will be increasingly aware of the importance of changing consumption patterns and playing an active role in preserving nature. However, the success of this policy is highly dependent on cooperation between the government, business actors, and the community as consumers, who must also support the transition to the use of environmentally friendly bags.

### **Business Actor Compliance**

Data findings related to the implementation of Perwali No. 16 of 2022 in the City of Surabaya show that although 83% of business actors are aware of the policy requiring the use of environmentally friendly bags, there are still major challenges in its implementation.



Figure 3. Supervision of researcher survey results in Field Work Practice with the Surabaya City Government

Source: Processed by Researchers, 2025

Around 72% of business actors are still using single-use plastic bags. This shows that even though most business actors are aware of the policy, there is significant resistance in its implementation.



Figure 4. Supervision of researcher survey results in Field Work Practice with the Surabaya City Government

Source: Processed by Researchers, 2025

One of the main reasons behind the use of plastic bags is consumer resistance to paid eco-friendly bags. Many consumers still object to the additional costs charged for eco-friendly bags. They are more accustomed to the free plastic bags they have received in shopping centers, supermarkets, and restaurants. This inconvenience felt by consumers worsens the transition to the use of eco-friendly bags. Some consumers even consider that paid eco-friendly bags are not comparable to the convenience and ease offered by single-use plastic bags. In addition, business actors also have concerns regarding the decline in income due to the additional costs required to procure eco-friendly bags. The single-use plastic bags they previously used were usually cheaper and easier to obtain compared to eco-friendly bags which require higher investment. Business actors, especially those operating in the traditional market and restaurant sectors, are concerned that the additional costs for eco-friendly bags can be burdensome.

### **Community Awareness and Adaptation**

Data related to public awareness and adaptation to the implementation of Perwali No. 16 of 2022 shows that most residents of Surabaya City are aware of the policy to reduce single-use plastic bags. As many as 92% of residents admitted to being aware of this regulation, which indicates that the socialization carried out by the local government and related parties has been quite effective in conveying information about the regulation. This high level of awareness is a positive indicator that this policy has been widely known by the public, both through social media, information boards in shopping centers, and communication from business actors who implement this policy in daily transactions.



Figure 5. Supervision of researcher survey results in Field Work Practice with the Surabaya City Government

Source: Processed by Researchers, 2025

Furthermore, the community's adaptation to this policy also shows a fairly good trend. As many as 89% of residents admitted to bringing their own shopping bags when shopping, whether to supermarkets, traditional markets, or other shopping centers. This figure shows that the majority of people are starting to understand the importance of reducing the use of single-use plastic bags and switching to more environmentally friendly alternatives. This also reflects a fairly significant change in behavior, where people are increasingly accustomed to bringing shopping bags from home as part of their routine. With more and more residents adapting to this policy, the hope is that the amount of plastic waste generated from shopping activities can continue to decrease.



Figure 6. Supervision of researcher survey results in Field Work Practice with the Surabaya City Government

Source: Processed by Researchers, 2025

However, on the other hand, there are still major challenges in terms of public understanding of broader environmental issues. Although awareness of this policy is quite high, data shows that 58% (Surabaya City Government Evaluation Report, 2024) of residents are not aware of the plastic waste crisis that is occurring in Surabaya City. This indicates that there is still an information gap in public understanding of the environmental impacts caused

by plastic waste. The lack of environmental education is one of the main factors causing this lack of understanding. Many residents follow this policy only as a form of compliance with the rules, not because of awareness that arises from an understanding of the ongoing environmental crisis.

This lack of environmental education is a challenge for local governments and related institutions to strengthen campaigns regarding the negative impacts of plastic waste on the ecosystem and the quality of life of the community. More massive educational efforts need to be carried out, both through social media, school programs, and community activities, so that the community does not only follow the rules, but also understands the urgency of reducing plastic waste. With increasing public understanding of environmental problems, it is hoped that their awareness will be more sustainable and encourage changes in consumption patterns that are more environmentally friendly in the long term.

The implementation of Perwali No. 16 of 2022 in the City of Surabaya faces various challenges that hinder the effectiveness of the policy in reducing the use of single-use plastic bags. Although this policy has been in effect since April 9, 2022 and targets shopping centers, supermarkets, traditional markets, and restaurants, its implementation is still far from optimal. One of the main obstacles is the limited supervision by the relevant authorities. Only a small number of business actors are actually inspected and supervised in its implementation, so that many businesses still use plastic bags. The limited number of officers responsible for conducting inspections and ensuring business actor compliance is the main factor in this weak supervision. As a result, many business actors feel that there are no real consequences if they do not immediately switch to environmentally friendly bags.

This weakness in supervision has led many business actors to continue using plastic bags for reasons of convenience and lower costs. Some modern shopping centers may have switched to environmentally friendly bags, but in the traditional market sector and small restaurants, the use of plastic bags is still dominant. This situation shows that even though regulations have been made, their implementation is still not fully effective due to the lack of firm action from the authorities. In some cases, there are business actors who only follow this policy symbolically, for example by providing environmentally friendly bags but still giving plastic bags to customers who ask for them.

In addition to weak supervision, the lack of alternative eco-friendly bags is also a major challenge, especially in traditional markets. Traditional markets have different characteristics compared to modern shopping centers or supermarkets that are more adaptable to government policies. In traditional markets, traders generally rely on single-use plastic bags because they are cheap, easy to obtain, and more practical to use. Meanwhile, eco-friendly bags are still difficult to find in traditional markets, and if available, they are much more expensive than regular plastic bags.

For small merchants who have limited financial resources, the price of eco-friendly bags is a major factor that hinders their transition. They have to consider operational costs, where the increase in the price of shopping bags can affect their profits. Some merchants even argue that implementing this policy without a more affordable solution will actually burden their business. As a result, many choose to continue using plastic bags, especially since consumers are also reluctant to pay more for eco-friendly bags.

The lack of access to eco-friendly bags is also exacerbated by the lack of government support in providing affordable alternatives for small and medium-sized businesses. Without incentives or subsidies that allow traders to obtain eco-friendly bags at a cheaper price, the transition from plastic bags to more sustainable materials will be slow. In addition, many traders in traditional markets still have limited information about alternative materials that

can be used, so they still choose plastic bags as their main choice in transacting with customers.

Meanwhile, consumers also play an important role in the success of this policy. Many consumers still prefer plastic bags because they are free and more practical, compared to paid eco-friendly bags. This resistance occurs mainly among people with low environmental awareness, where they do not see the direct impact of single-use plastic on the environment. In addition, the lack of education about the dangers of plastic waste in the city of Surabaya also contributes to the low level of public participation in supporting this policy.

These challenges show that the implementation of the plastic bag reduction policy still requires more systematic and comprehensive efforts. Local governments need to strengthen the monitoring mechanism so that business actors are more disciplined in complying with the policy. One step that can be taken is to increase the frequency of inspections to business premises and apply stricter sanctions for violators of the rules. Without consistent monitoring, this policy will only be a regulation on paper without any real impact on reducing plastic waste.

In addition to supervision, the government also needs to play a more active role in providing alternative environmentally friendly bags at more affordable prices. Subsidy programs or cooperation with environmentally friendly bag manufacturers can be a solution to ensure that small traders can easily access plastic substitutes at more competitive prices. That way, business actors will not feel burdened in making the transition to more sustainable policies.

Public education must also be strengthened to raise awareness of the negative impacts of plastic waste on the environment. Public campaigns through social media, seminars, and educational programs in schools can be strategic steps to build long-term awareness. With a better understanding of the dangers of plastic to the environment, it is hoped that the public will be more active in supporting this policy by bringing their own shopping bags or being willing to buy environmentally friendly bags without objection.

In addition, initiatives from the private sector and environmental communities can also help accelerate the implementation of this policy. Programs that encourage the use of reusable shopping bags, such as discounts for customers who bring their own bags, can be a positive incentive for the community. Some shopping centers can even implement a reward point system for customers who do not ask for plastic bags, so that environmentally friendly habits can be formed naturally.

In the long term, the success of Perwali No. 16 of 2022 in reducing the use of plastic bags is highly dependent on the synergy between the government, business actors, and the community. If the existing challenges can be overcome with more strategic and sustainable policies, then the City of Surabaya can be an example for other cities in efforts to reduce plastic waste. With a joint commitment from all parties, this policy can run more effectively and have a positive impact on the environment and the quality of life of the community.

The implementation of Perwali No. 16 of 2022 in the City of Surabaya to reduce the use of single-use plastic bags faces significant challenges, especially in terms of supervision and the availability of environmentally friendly alternatives. Based on studies conducted by Suharto (2020) and Widodo (2020), weak supervision and limited resources to monitor business actors' compliance are among the main obstacles in realizing the effectiveness of this policy. Suharto emphasized the importance of a practical and participatory approach in social policy, which means that strengthening supervision and active involvement of the community and business actors in the policy process is the key to success. In addition, the lack of affordable environmentally friendly bag alternatives, especially in traditional markets,

also adds to the challenges in implementing this policy. As stated by Widodo (2020), policy analysis must include an evaluation of the diverse socio-economic conditions of the community, which in this case relates to dependence on cheap and easily available plastic bags..

Given these challenges, there needs to be a systematic effort involving synergy between the government, business actors, and the community. The government must strengthen supervision, provide more affordable alternatives, and increase public education about the negative impacts of plastic waste. Without these steps, the plastic bag reduction policy will not have a significant impact on the environment. With a more coordinated approach and the right strategy, the implementation of Perwali No. 16 of 2022 is expected to be more effective, and the City of Surabaya can be an example in efforts to reduce plastic waste sustainably.

## E. CONCLUSION

The implementation of Perwali No. 16 of 2022 in the City of Surabaya is a progressive step in reducing the use of single-use plastic bags in shopping centers, supermarkets, traditional markets, and restaurants. This policy has succeeded in increasing public and business awareness of the importance of using environmentally friendly bags. Data shows that 92% of the public are aware of this policy, and 89% of them have started bringing their own shopping bags. However, there are still obstacles in implementing this policy in the field. One of the main challenges is limited supervision. Only a small number of business actors are properly supervised, so many still use plastic bags. Without a stricter supervision mechanism and clear sanctions, this policy is difficult to achieve optimal effectiveness.

In addition, the availability of alternative eco-friendly bags is still an obstacle, especially in traditional markets. The higher price compared to plastic bags makes small traders reluctant to switch, because they are worried that it will affect their income. Without support in the form of subsidies or incentives from the government, the transition to using eco-friendly bags will be slower.

Another factor is the lack of education about the impact of plastic waste. Although many residents have followed this policy, 58% are still unaware of the plastic waste crisis in Surabaya. This shows that good policies need to be accompanied by more massive education efforts so that public awareness is not only limited to compliance with the rules, but also grows from a deeper understanding of the environment.

Overall, the implementation of this policy has had a positive impact, but still requires stricter supervision, the provision of more affordable alternatives, and more intensive environmental education so that the goal of reducing plastic waste can be achieved optimally.

## REFERENCE

- Abbas, L., Adiansyah, R., Asfar, A. I. T., Asfar, A. I. A., FA, A. N., Ramli, N., & Asis, M. N. (2024). *Inovasi Batako Ramah Lingkungan Dari Botol Plastik*. Penerbit KBM Indonesia.
- Adha, N. (2024). *Inovasi Pemasaran Jasa Pendidikan Dalam Meningkatkan Minat Santri Mts Daarul Rahman V Sungai Guntung Indragiri Hilir, Riau* (Doctoral dissertation, Institut PTIQ Jakarta).
- Alir, D. (2005). *Metodelogi penelitian*. Jakarta: PT Rajawali Prees.
- ANTARA News. (2021). *Penggunaan kantong plastik di Jakarta turun 82 persen*. Diakses dari <https://www.antaraneews.com/berita/2225546/penggunaan-kantong-plastik-di-jakarta-turun-82-persen>

- Awaluddin, A. P., Pi, M. S. T., Khairul Jamil, S. P., Hawati, S. P., Pi, M., Najih, M. R., ... & Si, M. (2024). The ecology and management of marine debris: buku referensi.
- Fadillah, N., Reza, M., & Ardi, U. S. (2024). Sustainable Challenges: Community Response to the Policy Restricting the Use of Plastic Shopping Bags in Jambi City. *JKMP (Jurnal Kebijakan Dan Manajemen Publik)*, 12(1), 11-23.
- Halim, E. G., & Nafi'ah, B. A. (2023). Evaluasi kebijakan pengurangan penggunaan kantong plastik (Studi kasus di Pasar Pabean Surabaya). *Journal Publicuho*, 7(4). <https://doi.org/10.35817/publicuho.v7i4.555>
- Hasid, H. Z., Se, S. U., Akhmad Noor, S. E., Se, M., & Kurniawan, E. (2022). Ekonomi sumber daya alam dalam lensa pembangunan ekonomi. *Cipta Media Nusantara*.
- Irwansyah, I., & Ismayanti, I. (2024). Pengembangan Kebijakan: Mendorong Pemerintah Kota Makassar Dalam Meningkatkan Aksesibilitas Layanan Kesehatan Pencegahan Stunting. *Journal of Governance and Local Politics (JGLP)*, 6(2), 162-174.
- Koestoer, R. H., & Setiowati, R. (2023). *Dinamika Kebijakan Lingkungan Global dalam Perspektif Lokal*. Universitas Indonesia Publishing.
- Nugroho, C., Sos, S., & Kom, M. I. (2020). *Cyber society: Teknologi, media baru, dan disrupsi informasi*. Prenada Media.
- Pemerintah Kota Denpasar. (2019, Juni 30). Lima bulan pasca penerapan Perwali Nomor 36 Tahun 2018 penggunaan kantong plastik di Kota Denpasar menurun drastis. Diakses dari <https://www.denpasarkota.go.id/berita/lima-bulan-pasca-penerapan-perwali-nomor-36-tahun-2018-penggunaan-kantong-plastik-di-kota-denpasar-menurun-drastis>
- Prasetyo, A., & Arifin, M. Z. (2018). *Analisis biaya pengelolaan limbah makanan restoran*. Indocomp.
- Priadana, M. S., & Sunarsi, D. (2021). *Metode penelitian kuantitatif*. Pascal Books.
- Santosa, T. A. (2024). Evaluasi kebijakan pengendalian sampah plastik terhadap kelestarian lingkungan hidup di Kota Semarang. *Journal of Politic and Government Studies*, 13(2). Diakses dari <https://ejournal3.undip.ac.id/index.php/jpgs/article/view/43583>
- Sari, M., Rachman, H., Astuti, N. J., Afgani, M. W., & Siroj, R. A. (2023). Explanatory survey dalam metode penelitian deskriptif kuantitatif. *Jurnal Pendidikan Sains Dan Komputer*, 3(01), 10-16. <https://doi.org/10.47709/jpsk.v3i01.1953>
- Sarwono, A. E., & Handayani, A. (2021). *Metode kuantitatif*. Unisri Press.
- Solehudin, R. H. (2024). *Pengembangan instrumen penelitian: analisis kebijakan komunitas perkotaan dalam perspektif interseksional*. Kaizen Media Publishing.
- Suharto, E. (2020). *Analisis kebijakan publik: Panduan praktis mengkaji masalah dan kebijakan sosial (Edisi Revisi)*. Belbuk.
- Suriyati, C. (2025). Tanggung Jawab Pelaku Usaha atas Produk Cacat dalam Perspektif Hukum Perlindungan Konsumen. *Battuta-Jurnal Ilmu Hukum*, 1(1), 1-7.
- Suryani, T. (2020). Evaluasi kebijakan larangan kantong plastik di Indonesia: Studi kasus Bali dan Jakarta. *Jurnal Kebijakan Publik*, 15(2), 123-135.
- Taali, M., & Maduwinarti, A. (2024). *Green Marketing*. PT. Sonpedia Publishing Indonesia.
- Tarigan, R. S. (2024). *Konstitusi Dan Kekuasaan Studi Kasus Dalam Hukum Tata Negara*. Ruang Karya Bersama.
- Widodo, J. (2020). *Analisis kebijakan publik: Konsep dan aplikasi analisis proses kebijakan publik*. Penerbit Graha Ilmu.
- Wirati, N. W. (2020). Implementasi kebijakan Peraturan Walikota Denpasar Nomor 36 Tahun 2018 tentang pengurangan penggunaan kantong plastik di Kota Denpasar. *Jurnal Widya Publika*, 9(2), 1-10. <https://doi.org/10.70358/widyapublika.v9i2.803>