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Opportunities and Challenges for Limitation of Plastic Waste in Balikpapan City

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Abstract

The Balikpapan City Government has made various efforts to reduce the volume of single-use plastic use. This study aims to examine various opportunities and challenges faced by the Balikpapan City Government in an effort to limit waste, especially single-use plastic waste. This type of research uses descriptive qualitative research with purposive informant selection techniques, data collection techniques in the form of observation, in-depth interviews, documentation and literature studies along with data analysis techniques using triangulation methods. The results of the study show that in the implementation of the policy of limiting single-use waste, there are internal opportunities and external opportunities in addition, resulting in factors that become internal challenges and external challenges. The recommendations given are for regencies/cities that have not issued a policy on banning single-use plastic products/packaging, it is recommended to make local regulations, then efforts are needed to improve supervision in order to minimize elements who still ignore existing regional regulations.

Keywords

plastic waste restriction;
single use plastic;
opportunities and challenges



I. Introduction

The progress of an area cannot be separated from the increase in the rate of population growth. Changes in people's consumption patterns caused by high inflows of immigration in an area can be seen through the composition of waste, especially in urban areas which causes an increase in the amount of waste generation which is directly proportional to population growth.

In Law Number 18 of 2008 concerning Waste Management, it has been stated that efforts to reduce waste include limiting waste generation, recycling waste, and reusing waste. Various steps were taken, one of which was through efforts to limit plastic waste which began to show positive indications of changes in community behavior. (Pengelolaan Sampah, 2018)

The less waste and zero waste movement in society has developed quite significantly through efforts to reduce the use of plastic shopping bags, plastic straws, bottles and plastic cups as well as single-use plastic spoons and forks. The Directorate General of Management of Waste, Hazardous Waste and Toxic Materials, Ministry of Environment and Forestry of the Republic of Indonesia, through a Kompas Daily poll showed that more than 61% of people from various professional backgrounds agree that they must bring their own shopping bags and 90% of people have gone on a diet using plastic. and 97.9% of the public are willing to reduce plastic waste.

Polls conducted by Harian Kompas in November 2018 and August 2019 stated that there are positive things and changes in public commitment related to wanting to reduce plastic waste. This is especially the case among young people and the biggest factor for this change is the public campaign. This is certainly inseparable from the participation of regional heads who have issued regulations for limiting single-use plastic waste. The list of provincial/city/district governments that have issued regulations for limiting single-use plastic waste can be seen in table 1 below:

Table 1. Provincial/City/Regency Governments That Have Issued Regulations for Restricting Single-use Plastic Waste 2020

No.	Provincial/City/Regency	No.	Provincial/City/Regency
1.	DKI Jakarta Province	30.	Nunukan Regency
2.	Bali Province	31.	Tanah Laut Regency
3.	Padang City	32.	Tanah Bumbu Regency
4.	Bukittinggi City	33.	Banjar Regency
5.	Jambi City	34.	Tapin Regency Siak Regency
6.	Bogor City	35.	Polewali Mandar Regency
7.	Depok City	36.	Biak Numfor Regency
8.	Bekasi City	37.	Merauke Regency
9.	Sukabumi City	38.	Makassar City
10.	Bandung City	39.	Banda Aceh City
11.	Semarang City	40.	Ambon City Ambon City
12.	Probolinggo City	41.	Palembang City
13.	Denpasar City	42.	Tarakan City
14.	Pontianak City	43.	Tebing Tinggi City
15.	Banjarmasin City	44.	Bitung City
16.	Balikpapan City	45.	Tanjung Balai City
17.	Samarinda City	46.	Solok City
18.	Bontang City	47.	Wonogiri Regency
19.	Bau-bau City	48.	Lumajang Regency
20.	Jayapura City	49.	Pamekasan Regency
21.	Barito Kuala City	50.	Sindereng Rappang Regency
22.	Purwokarta Regency	51.	Tabalong Regency
23.	Bogor Regency	52.	Boalemo Regency
24.	Lebak Regency	53.	Situbondo Regency
25.	Tulungagung Regency	54.	Bekasi Regency
26.	Pati Regency	55.	Wajo Regency
27.	Banyumas Regency	56.	Sukabumi Regency
28.	Badung Regency	57.	Bangka Regency
29.	Hulu Sungai Utara Regency	58.	Yogyakarta City

Source: KLHK year of 2020

As shown in Table 1 above, the City of Balikpapan is one of the cities that implements the Mayor's Regulation on Reducing the Use of Plastic Waste. This step was taken by the Balikpapan City Government in line with one of the missions of the City of Balikpapan, namely "Improving Cleaning Services and Integrated Waste Management". The Balikpapan City Government prioritizes environmental cleanliness so that the people of Balikpapan City can move comfortably, beautifully, and cleanly.

The Balikpapan City Government itself has upgraded the status of Balikpapan Mayor Regulation Number: 8 of 2018 concerning Reducing the Use of Plastic Bags to Balikpapan City Regulation Number 1 of 2019 concerning Reduction of the Use of Disposable Plastic Products/Packaging and Balikpapan Mayor Regulation Number: 28 of 2019 concerning Restrictions on Use Disposable Plastic Products/Packaging. In the regulation, it is regulated that business actors are prohibited from using single-use plastic products/packaging and are required to provide environmentally friendly alternative bags.

This step is certainly a positive thing that has been taken for the Balikpapan City Government to maintain its commitment in efforts to promote waste restrictions in the area. Therefore, this paper intends to examine various opportunities and challenges faced by the Balikpapan City Government in an effort to limit waste, especially single-use plastic waste.

II. Review of Literature

2.1 Strategic Management

Employees who have skills in emotional intelligence will be able to read other people's feelings and have social skills which means they are able to manage the feelings of others well. Very emotional intelligence important is owned by every employee in an organization that will help employees connect with other employees and share information and to manage conflicts that arise in carrying out tasks in their work (Siregar, 2020). In such unsettling moments, we often forget that stressors, if not escapable, are fairly manageable and treatable. Stress management refers to interventions designed to reduce the impact of stressors in the workplace. These can have an individual focus, aimed at increasing an individual's ability to cope with stressors (Orji, 2020). Every company always tries to maximize the benefits it gets. Various strategies are applied to achieve these goals. The company will always keep its performance looking good in the eyes of its stakeholders. But in reality, companies are often faced with various obstacles that can cause a decline in performance and even financial difficulties and eventually go bankrupt. And of course the company will try to cover up this unhealthy condition from its stakeholders (Sitanggang et al, 2020).

Pearce and Robinson (2007) define that strategic management is a collection and action that results in the formulation (formulation) and implementation (implementation) of plans designed to achieve organizational goals. Riva'i, in Yunus (2016) suggests that there are 3 (three) strategic management processes as follows:

1. Strategy formulation

This phase include strategy formulation, identifying the mission, diagnosing past and present performance, setting objectives, SWOT analysis, and Prevention Strategy,

2. Implementing Strategy

This phase include implementing strategy, organizational force, and functional strategy

3. Evaluating

This phase include, evaluating and controlling (D et al., 2012)

2.2 SWOT Analysis

SWOT is a strategic planning acronym for Strengths, Weaknesses, Opportunities and Threats. In short, SWOT embodies the conceptual and methodological core of strategic planning by focusing on environmental trends that can influence an institution's mission and strategy. (Emet Gurel, 2017)

SWOT Analysis, Round 1: Identifying Opportunities and Threats

In this new framework, decision makers begin by identifying external opportunities and threats and tasks in the community environment. However, the process of identifying external factors must be iterative and closely coordinated with the identification of internal factors. So, when any opportunities or threats are identified, decision makers should immediately begin the integration process by asking these questions: "What are the institutional strengths that will help us take advantage of these opportunities or prevent these threats?" and "What institutional weaknesses will prevent us from taking advantage of this opportunity or avoiding this threat?" (look Freedman and Van Ham, 1982). They can start making this initial assessment by creating an initial list of strengths and weaknesses that flows directly from the initial list of opportunities and threats.

This initial iterative process represents a fundamental departure from the way in which SWOT analysis is typically described in the literature (look, for example, Koteen, 1989; Espy, 1986; Barry, 1986) and applied in practice..

Following this procedure, the decision maker begins to address the missing link problem discussed in the previous section. Equally important, they are forced by this process to formulate more precise and more realistic definitions of opportunities, threats, strengths and weaknesses.

Finally, this process often leads to analytical questions that require further research. For example, if decision makers find that they do not know enough about perceived opportunities to be able to relate them to internal factors, they can assign a staff member to perform a more detailed analysis of external and internal factors. (Kearns, 1992)

2.3 Waste Management

Law of the Republic of Indonesia Number 18 of 2008 concerning Waste Management, states that waste is the remains of human daily activities and natural processes in solid form. Then what is meant by specific waste is waste which due to its nature, concentration, and volume requires special processing. Waste management is meant to be a continuous, systematic, comprehensive activity which includes handling and reducing waste.

To assist solid waste management practitioners, several "shared values," or strategies, can be proposed. There is a striking degree of similarity in the needs and constraints of municipal waste management across Asia (Hoonweg, D. et al., 1999). In Hoonweg, the waste management process is as follows:

1. Develop waste disposal facilities
2. Local governments should minimize the frequency of residential waste collection to a maximum of two times per week.
3. Local governments should focus primarily on residential waste collection.
4. Waste collection and disposal costs should be based on the level of waste generation.
5. An integrated approach to solid waste management needs to be followed.
6. All levels of government, including multi-national institutions and transnational companies, should play a role in the development of long-term programs.
7. Local governments must honestly and respectfully measure the willingness and ability of the community to participate in the design and implementation of waste management programs.
8. All levels of government should promote the waste management hierarchy.
9. Do a budgeting
10. Local governments are usually in the best position to assume primary responsibility for the collection and disposal of municipal solid waste.

III. Research Methods

The following will describe the things contained in this research method. This research uses a qualitative descriptive type of research because it wants to examine the opportunities and challenges of waste restriction in the city of Balikpapan. Sugiyono (2016: 9) defines that the qualitative descriptive method is a method that uses post-positivism philosophy by looking at the condition of natural objects with data collection techniques carried out by triangulation (combined) and using inductive/qualitative data analysis techniques.

Data collection techniques in this study were carried out in several ways, namely: in-depth observation, in-depth interviews, documentation, and study literatur. Data analysis techniques used include: data reduction, data presentation, and drawing conclusions. The method used is the triangulation method. Triangulation in Collin Dictionary is a method of surveying in which an area is divided into triangles, one side (the base line) and all angles of which are measured and the lengths of the other lines calculated trigonometrically.

The steps of data analysis in this study were carried out through:

- a. Observation of the opportunities and challenges of waste restrictions implemented in the City of Balikpapan;
- b. Conducting interviews with key informants and other informants about the opportunities and challenges of limiting waste in Balikpapan City;
- c. Describe the efforts made by the Environmental Service of Balikpapan City in responding to the opportunities and challenges of limiting waste in the area;
- d. Draw conclusions based on various data that has been obtained.

IV. Results and Discussion

4.1 Waste Restriction in Balikpapan City

Balikpapan City has a strategic position as a buffer in the framework of preparation for the realization of the National Capital City (IKN) which has a vision: "Realizing Balikpapan as a Leading City, Comfortable to Live in, and Sustainable" one of which can be realized through the implementation of the mission: "Creating a livable city with insight environment". An effort to realize this, the City of Balikpapan has 4 (four) Ecological Commitments for the City of Balikpapan, including:

1. Green Industry
Development of Industrial Areas with the Concept of Zero Waste, Zero Sediment.Zero Waste to Landfill
2. Foresting The City
Forest city with 2 protected forests and 20 urban forest
3. Adaption & Mitigation
Strengthening the city's resilience to the impacts of climate change, RAD GRK Base Line.

The initial ecological commitment of the City of Balikpapan is shown through Perwali Number: 38 of 2018 concerning Regional Policies and Strategies in Management of Household Waste into Household-like Waste (JAKSTRADA PS3R & S3R) which generally contains the policy directions for reducing and handling household waste and similar waste household waste.

Waste reduction targets based on JAKSTRADA PS3R & S3R Balikpapan 2018-2025 can be shown in Table 2 below:

Table 2. Balikpapan City Waste Reduction Target 2018-2025

Year	Waste Handling Target	Waste Reduction Target
2018	73%	18%
2019	80%	20%
2020	75%	22%
2021	74%	24%
2022	73%	26%
2023	72%	27%
2024	71%	28%
2025	70%	30%

Source: DLH Balikpapan City year of 2018

The data shows that the waste reduction target in 2018 is 18% and the realization of waste reduction is 19.22% in 2018 with the following composition:

Table 3. Realization of Waste Reduction in 2018

Information	Ton	Percentage (%)
Waste restriction	13,409	2,87
Waste Reuse	68,141	14,56
Waste Recycling	8,30	1,77

Source: DLH Kota Balikpapan year of 2018

One of the efforts to reduce waste through waste restrictions is to reduce the use of plastic waste. Nevertheless, until 2020, the waste generation of Balikpapan City in 2020 still reached 467.86 tons/day which tends to show an increase in the amount of waste generation every year since 2015 with the following composition/material:

Table 4. Waste Composition by Material for September 2020

Materials	Ton	Percentage (%)
Leftovers	176.21	42,30
Other	26.06	19,53
Paper	80.01	10,26
Plastic	67.42	7,2
Glass	30.69	6,56
Wood, Twigs & Leaves	48.02	6,36
Metal	17.11	3,87
Fabrics & Textiles	13.76	2,94
Rubber & Leather	4.59	0,98
TOTAL	467,86	467,86

Source: DLH Kota Balikpapan year of 2020

Based on the data in Table 4 above, it can be seen that plastic is one of the materials that contributes to the highest amount of waste generation in Balikpapan City in 2020.

4.2 Opportunities

a. Internal

- **The Government's Commitment through Establishing the Basic Policy on Plastic Waste Reduction Policy**

The Balikpapan City Government through the Balikpapan City Environmental Service seeks to maintain a commitment to reducing the use of single-use plastics. The form of reducing the use of single-use plastic includes the following activities:

1. Usage restrictions
2. Provision of alternatives that are reusable, easy to clean and/or wash and if damaged can be repaired and/or recycled.

The development, and improvement of the basic plastic waste reduction policy in Balikpapan City is pursued through the following regulations:

Surat Edaran Dirjen PSLB3 06/PSLB3-PS/2015 Mengenai Langkah Antisipasi Penerapan Kebijakan Kantong Plastik Berbayar pada Usaha Ritel Modern Kepada Gubernur, Walikota, Bupati dan Dunia Usaha pada 17 Desember 2015;

- Circular Letter of the Director General of PSLB3 06/PSLB3-PS/2015 Regarding Anticipatory Measures for the Implementation of Paid Plastic Bag Policy in Modern Retail Business to Governors, Mayors, Regents and the Business World on 17 December 2015
- Letter of the Director General of PSLB3 S.1230/PSLB3-PS/2016 dated 17 February 2016 concerning the Price and Mechanism of Paid Plastic Bags;

The Soft Launching of Paid Plastic Bag Policy was held at the commemoration of the National Waste Care Day on February 21, 2016 at the HI Roundabout in Jakarta. The trial implementation of the application of plastic bags is not free in 23 cities starting from February 21-June 2016.

As of February 22, 2016, there were 11 cities that showed seriousness in carrying out the trial, namely: Bandung, Balikpapan, Palembang, Tangerang, Semarang, Banda Aceh, Kendari, Makassar, Denpasar, South Tangerang, and Jakarta. As a follow-up, a Circular Letter of the Director General was issued as follows:

- Circular of the Director General of PSLB3 SE.8/PSLB3/PS/PLB.0/5/2016 dated 31 May 2016 concerning Reduction of Plastic Waste Through the Application of Non-Free Single-use Plastic Shopping Bags as a basis for continuing the second phase of the trial on a national scale.
- Circular Letter Number 005/0123/BLH

In practice, there was a decrease in the percentage reduction in plastic use in February-April 2016, which was an average of 11.2%. This is due to the difference in prices where modern retailers charge Rp. 200.00 according to the circular issued by APRINDO, thus making consumers prefer to buy compared to carrying their own shopping bags.

As a follow-up to the plastic bag reduction policy in Balikpapan City, the following regulations were issued:

- Balikpapan City Regulation Number: 13 of 2015 concerning Management of Household Waste and Similar Waste;
- Balikpapan Mayor Circular Letter Number: 005/0123/BLH concerning Reducing the Use of Plastic Bags and Paid Plastic Bags in Balikpapan City in 2016.

In 2016 a trial survey was conducted, the application of plastic is not free in 3 modern retailers and 7 local retailers as well as evaluation and socialization of the application of the free plastic trial. In 2017 a Rapid Assessment of Marine Garbage Hotspots in Indonesia by the Ministry of Maritime Affairs was carried out in August 2017.

The results of the calculation of waste in the Pandansari River were 182,880 kg. Therefore, in 2018 a policy to reduce the use of plastic bags was issued through the following regulations:

- Balikpapan Mayor Regulation Number: 8 of 2018 concerning Reducing the Use of Plastic Bags

In the regulation, it is regulated that business actors are prohibited from using single-use plastic products/packaging and are required to provide environmentally friendly alternative bags. Establishment of Perwali No. 8 of 2018 is motivated by the support provided by the Environmental Care Community of the City of Balikpapan and the DPRD of the City of Balikpapan. In fact, there is pressure to propose the issuance of a regional regulation regarding the restriction of single-use plastic waste, namely by signing a declaration at the 2018 HPSN event in Balikpapan City which is then followed by 4 declarations, namely:

1. The use of a tumbler;
2. Commitment to reduce the use of plastic waste;
3. Commitment to sorting and treating waste at the source and
4. *eco office Application*.

- Reading of the declaration at the event The 16th Asean Working Group Environmentally Sustainable Cities (AWGESC):

Indonesia has committed to reduce 30% of waste at the source and to reduce 70% of marine litter by 2025. To implement the national commitment, we, Balikpapan City, Banjarmasin City, Cimahi City, Malang City, and Sigi Regency, are committed to reduce plastic waste by limiting the usage of single-use plastic bag. In the Balikpapan Mayor Regulation Number: 8 of 2018 concerning Reducing the Use of Plastic Bags, it is stated that business actors are prohibited from using plastic bags in order to reduce dependence on plastic bags. The initial stage of enforcing the ban on the use of plastic bags is carried out at the following places: shopping centers, department stores, hypermarkets, supermarkets, minimarkets, and modern retail.

Business actors are required to provide environmentally friendly alternative bags and business actors who violate the provisions may be subject to administrative sanctions in the form of: verbal warnings, written warnings, suspension of business activities, and temporary revocation of business licenses. Business actors as referred to in Article (3) who use plastic bags prior to the enactment of this Mayoral Regulation, can still use plastic bags and within a period of 3 (three) months must comply with this Mayor Regulation..

The results of the calculation of the sample use of plastic bags by local retailers are 15,680 pcs/month. The number of local retailers is ± 132 retailers. The results of the calculation of the sample use of plastic bags by modern retailers are 74,989/month with the existence of modern retail as many as 14 minimarkets and 16 supermarkets. Socialization of the Strategy for Implementing the Balikpapan Mayor Regulation Number 8 of 2018

Regarding Reducing the Use of Plastic Bags, it was carried out on May 4, 2018 and then a collaboration was initiated between the Department of Cooperatives and SMEs for the City of Balikpapan to provide alternative reusable shopping bags with retail. Then, on 24 May 2018 DKUMKMP held a coordination and synchronization meeting for the provision of alternative shopping bags at modern retail. Referring to the legal basis above regarding the policy of reducing the use of single-use plastic waste packaging, the Balikpapan City Government has started to implement that not only plastic bags but also products or single-use plastic packaging need to be reduced..

In response to this, in 2019 efforts were made to improve the regulatory status of reducing plastic waste to:

- Balikpapan City Regulation Number 1 of 2019 concerning Reducing the Use of Single-use Plastic Products/Packaging; and
- Balikpapan Mayor Regulation Number: 28 of 2019 concerning Restrictions on the Use of Single-use Plastic Products/Packaging.
- Regional Regulation No. 1 of 2019 concerning the reduction of the use of single-use plastic products/packaging has been ratified with its implementing regulations through Perwali No. 28 of 2019 which was ratified on October 7, 2019 and has been tested for 3 months, and is effective starting February 7, 2020.

With the enactment of Perwali No.28 of 2019, Perwali No. 8 of 2018 is revoked and declared invalid. The Balikpapan City Regional Regulation No.1 of 2019 concerning Reducing the Use of Disposable Products/Packaging aims to reduce the rate of plastic waste generation which is a pollutant burden for the environment and is expected to maximize the results of the previous policy in 2018. Several important points in Perda No.1 Year 2019 and Perwali No. 28 of 2019, including the following

1. Regulation of Restrictions on the use of single-use plastic products/packaging
2. Disposable plastic products/packaging which includes: single-use plastic bags, polystyrene (styrofoam), disposable straws, single-use plastic packaging, and single-use plastic snack packaging.
3. The ban on single-use plastic products/packaging is implemented throughout the city of Balikpapan in the following areas: shopping centers, hypermarkets, department stores, supermarkets, modern retail, restaurants, canteens, bakeries, people's markets, public facilities, sports facilities , places of worship, public transportation, educational areas, tourist areas, offices, and other places as determined by the Mayor. Specifically, the packaging of disposable snacks is carried out in educational areas and environmental tourism areas.
4. As a result, there was a reduction in the amount of plastic bag waste in the modern retail sector, modern retail tenants, minimarkets, shops, bakery, traditional markets, and 23 pharmacies by 38.48 tons starting from January to December 2019

- **There is Support from Stakeholders Who Play a Role in the Implementation of Single-use Plastic Waste ReductionP**

The opportunities resulting from the plastic waste reduction policy in Balikpapan City are through the support and role of stakeholders in implementing the policy.

The existence of cooperation and support from several agencies, especially the legal department which has a function as a regulator plays a role in overseeing the course of the policy. Then, the Balikpapan City Trade Service has a role in the development of MSMEs and the fulfillment and provision of reusable shopping bags. In addition, in implementing the policy, the Satpol PP acts as an enforcer of policy implementation through the Perda and Perwali.

This call for plastic waste reduction also involves the participation and support of the Balikpapan City Hospital through a waste reduction campaign aimed at patients and visitors of the Balikpapan City Hospital. This campaign is carried out twice a day at 9.45 WITA and 19.30 WITA. This campaign was also followed by the distribution of reusable cloth bags for patient medicine as a substitute for plastic bags tas.

In its implementation, the person in charge of this single-use plastic waste reduction policy is the Environmental Service of Balikpapan City, where the DLH of the City of Balikpapan besides having a role in carrying out the coaching function also has a role in conducting outreach to the public regarding the policy. This is in line with the socialization

of Perda No.1 of 2019 which was carried out to 34 urban villages in Balikpapan City in 2019.

- **Eco Office Program as Support for Plastic Waste Reduction Policy**

At the beginning of each event, apart from safety induction, information about Less Waste Briefing is also provided. The information conveyed included: plastic restrictions, eco-office, waste segregation, and wise consumption carried out at city-scale events.

The Eco Office program, which is held once a year, is a waste management activity that is included in the category of waste restriction by using a weight rating criterion that can be seen as employees who have brought their own tumblers, brought their own food supplies with reusable packaging. As for the community, the implementation is focused on waste management, namely waste restriction through Green, Clean and Healthy (GCH) activities.

- b. External**

- **There is Community Participation that Supports the Use of Eco-Friendly Shopping Bags**

In disseminating the policy, DLH still follows local wisdom, where many people as consumers have made preparations because many are found in the fish market, especially if they want to buy fish, the fish is put in a basin container. This then became an inspiration for the DLH Balikpapan City in providing solutions to minimize plastic waste in the wet market.

In addition, there are also efforts to use reusable containers for the implementation of qurban activities. The restriction on the generation of single-use plastic bags at the Festival of Qurban refers to the Balikpapan Mayor's Circular No. 019.1/0272/DPPP regarding the Call for the Slaughter of Sacrificial Animals in the Context of Hari Raya 1440 H/2019 which urges the qurban organizers to use reusable containers for distributing qurban meat, such as using basins, besek, purun bags, and teak leaves.

- **The existence of support from the private sector in collaboration with the city government**

The role of the private sector is also needed to participate and cooperate with the government, especially the DLH Balikpapan City to campaign and socialize the provision of single-use plastic bags.

Regarding the implementation of the policy, the City of Balikpapan DLH collaborated with the private sector, one of which was the Go-Jek company to conduct socialization because it was still an obstacle when ordering food (take away), but still using disposable plastic bags. Therefore, this is also the focus of the DLH Balikpapan City in controlling online shopping which will be monitored and then followed up.

Efforts to limit single-use plastic waste are carried out by reducing single-use plastic packaging/products, such as: the use of reusable shopping bags and reusable straws in restaurants, cafes, and bakeries in Balikpapan City. Restaurant, cafe and bakery owners have implemented restrictions even before the enactment of Perwali No.28 of 2019 applied to restaurants, cafes, bakeries, and others. Among them are Bee Fit Cafe, Holland Bakery, Roti Tiam Bakery & Cafe, and others. Then, there is an effort to use reusable beverage packaging at the Novotel Hotel and Ibis Hotel Balikpapan which supports the Balikpapan City Government policy in order to limit the generation of bottled drinking waste using reusable drinking water bottles in corridors and hotel rooms so as to reduce plastic waste by 520 kg/ month.

- **UMKM Participate and Cooperate in Producing Reusable Bags**

With this policy, it has the potential to create business opportunities for making reusable shopping bags where there are several MSMEs that have responded to produce reusable bags and even MSMEs that have supplied them in several shops and minimarkets, such as: Indomaret and Alfamidi Group where MSMEs can supply reusable bags. up to 8,000 reusable bags in 80 Alfamidi throughout East Kalimantan in 2018. The average production is 800 bags/month with a turnover of approximately 10 million/month and has supported efforts to increase community empowerment by employing 12 people.

This is certainly an advantage for MSMEs in increasing their business in addition to supporting the policy of reducing single-use plastic waste. Furthermore, the DLH of Balikpapan City not only carried out socialization to the community but also socialized and developed the MSMEs, which was supported by the Adiwiyata Group, which helped produce the reusable bags.

4.3 Challenges

a. Internal

- **Dissemination of Disposable Plastic Waste Reduction Policy Has Been Obstructed Due to the Covid-19 Pandemic**

DLH Balikpapan City is trying as optimally as possible in order to limit plastic waste in the area. In addition to collaborating with the environmental community, the City of Balikpapan DLH also collaborates with the private sector in facilitating CSR activities in the form of providing and using reusable shopping bags by socializing them..

However, this has become hampered due to the Covid-19 pandemic where physical contact relationships are limited and followed by a strict social distancing policy so as to limit the space for the DLH Balikpapan City to socialize and enforce Perda/Perwali where before the Covid-19 pandemic entered Indonesia, DLH The city of Balikpapan can carry out massive socialization but in 2020 this will no longer be carried out.

- **There is no clear SOP regarding the implementation of single-use plastic waste reduction innovation for Balikpapan City Environment Agency**

With regard to SOPs, the DLH of Balikpapan City is still referring to Perda No. 1 of 2019 and Perwali No. 28 of 2019. Therefore, in determining penalties for violators, they have not given penalties or sanctions. So far, the implementation of the policy is still at the stage of conducting socialization and supervision. And in the implementation of this supervision, if there is a violation or still using DLH plastic, the City of Balikpapan only gives a warning and guidance. This also applies when applied to UPTD Pasar and traditional markets which are still in the socialization stage.

- **50% Budget Cut Due to the Covid-19 Pandemic**

This is an obstacle for the DLH Balikpapan City to maximize the implementation of the Single-use Plastic Waste Reduction policy. Therefore, in an effort to socialize the City of Balikpapan's DLH, only online socialization either through electronic media or through various social media.

b. External

- **Lack of Human Resources in Supervision Due to the Covid-19 Pandemic**

The obstacle faced by the DLH Balikpapan City is the lack of human resources in the field of supervision for traditional markets and small stalls because supervision has to be divided since the emergence of the Covid-19 pandemic. The limitation of supervision

occurs due to the urgent need for TNI/Polri HR which is more focused on reducing the number of Covid-19 transmission in Balikpapan City.

Therefore, the socialization of business actors by the City of Balikpapan's DLH has been hampered and has not been carried out until now due to the Covid-19 pandemic. If there are business actors who still use single-use plastic, then this is not an absolute mistake made by the business actor, but also as a result of not conveying information related to the policy to these business actors.

- **There are still retailers who ignore single-use plastic waste reduction policies**

In this case, there are retailers who have been found by public complaints but are known to still ignore and the business actors who violate are the same people, where a month in SIDAk but a month later they act again.

- **The existence of a circular letter on the use of single-use plastics is not free, does not make people stop using single-use plastics**

In 2015 there were Balikpapan City regulations Number 13 Years regarding waste processing and local regulations for us (DLH), then for 2016 it issued a circular and the LHK ministry issued circulars to 23 Cities to test the application of plastic not free first. However, this was then followed up by the mayor's circular letter number 005, a follow-up to the KLHK letter regarding the trial of the application of non-free plastic. And in its implementation, the DLH Balikpapan City evaluates the application of non-free plastic, the first for the city of Balikpapan, the community or consumers do not object to plastic that is not free (buy) even though the KLHK provides a price limit of Rp. 200 but in the circular letter of the mayor of Balikpapan it is Rp. 1,500 with the hope that with the high price, consumers are expected not to buy, but at that price it is not a problem and does not object to consumers or the community. This then becomes a problem because people are still using single-use plastic bags. So responding to these conditions, Perwali Number 08 of 2018 was issued in order to reduce plastic waste but still in the Modern Retail sector. And then in 2019, local regulation (regional regulation) Number 1 of 2019 was issued regarding "reducing the use of single-use plastic products or packaging"

- **Recycled Bag Promotion Challenges**

In practice, many MSMEs/individual businesses have made reusable bags, but the number is still relatively small. In addition, UMKM/individual businesses in Balikpapan City are unable to compete with large-scale reusable bag producers, so that people still prefer to buy reusable bag products from outside/not the production of UMKM in Balikpapan City.

- **The difficulty of packing wet materials without the use of single-use plastic bags and the limited number of substitute products for plastic straws and disposable Styrofoam.**

In practice, packaging wet materials such as fish and meat is still difficult to do. Therefore, an effort was made to urge consumers to bring plastic buckets as an alternative tool for packing the wet materials. However, even this step is still difficult to do, especially for consumers who use two-wheeled vehicles. The limited availability of single-use plastic straws and Styrofoam products is also a challenge that still needs attention for the Balikpapan City Government so that the implementation of plastic waste restriction policies, especially single-use plastics, can run as optimally as possible.

V. Conclusion

The implementation of the innovation of limiting single-use plastic waste is a form of realization in the 4 ecological commitments of the City of Balikpapan. This is why the government issued a policy to limit single-use plastic waste, so in this case the researchers used the SWOT Analysis Technique to see the opportunities and challenges of the policy.

Based on the results of the study, the opportunities and challenges contained in the implementation of the Perda on plastic waste restrictions are as follows:

1. Opportunities (Internal)
 - a. There is a Government Commitment through the Basic Determination of Plastic Waste
 - b. There is support from stakeholders who play a role in the implementation of reducing single-use plastic waste
 - c. Eco Office Program as Support for Plastic Waste Reduction Policy
2. Opportunities (Eksternal)
 - a. There is community participation that supports the use of eco-friendly shopping bags
 - b. The existence of support from the private sector in collaboration with the city government
 - c. UMKM participate to producing reusable bags
3. Challenges (Internal)
 - a. Dissemination of disposable plastic waste reduction policy has been obstructed due to the Covid-19 pandemic
 - b. There is no clear SOP Regarding the implementation of single-use plastic waste reduction innovation for Balikpapan city
 - c. 50% budget cut due to the Covid-19 pandemic
4. Challenges (Eksternal)
 - a. Lack of Human Resources in Supervision Due to the Covid-19 Pandemic
 - b. There are still retailers who ignore single-use plastic waste reduction policies
 - c. The existence of a circular letter on the use of single-use plastics is not free, does not make people stop using single-use plastics
 - d. Recycled bag promotion challenges
 - e. The difficulty of packing wet materials without the use of single-use plastic bags and the limited number of disposable plastic straws and Styrofoam substitutes.

In addition, the obstacles contained in it are difficult packaging of wet materials such as fish and meat by Efforts: urging consumers to bring plastic buckets. But for users of two-wheeled vehicles, it is still difficult, then supported by the Covid-19 pandemic, which limits the City Government to socialize and enforce Perda/Perwali. In addition, there are limited replacement products for plastic straws and single-use Styrofoam as well as limited supervision due to the urgency of TNI/Polri human resources in reducing the transmission rate of Covid-19 in Balikpapan City. In the management of reusable bags, the obstacle is that there are already many MSMEs/individual businesses that make reusable bags, but the number is still relatively small and MSMEs/individual businesses in Balikpapan City are unable to compete with large-scale reusable bag manufacturers, so they prefer to buy products from the outside.

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