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Formulating an Excise Duty on Plastic: A Strategy to Manage Marine Plastic Waste in Indonesia

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Abstract: Plastic excise duty is one of the programs prescribed to combat the marine waste problem in Indonesia. This article presents an insight into the formulation of the government regulations needed to implement plastic excise duty. Initially planned to be implemented by 2018, the program is still in the process almost five years later. This article aims to identify the core issues discussed in the process, the stakeholders playing the central role, and their perspectives by interviewing key informants involved in the inter-ministerial committee. This research identified four ministries as definitive stakeholders as representatives of fiscal, industrial, and environmental groups. These groups have distinct interests in five core issues discussed during the negotiation process: the urgency of implementing an excise duty, its goals, scope of implementation, rate of tariff, and the settings for earmarking. This research found that environmental consideration was the central premise during the interministerial negotiation. However, the government's hesitation to immediately implement an excise on plastic bags shows that currently, the government tends to prioritize economic considerations

Keywords: marine pollution; stakeholders; excise duty; public policy; plastic waste

Citation: Irianto, O.; Mizuno, K.; Burhanuddin, S.; Triaswati, N. Formulating an Excise Duty on Plastic: A Strategy to Manage Marine Plastic Waste in Indonesia. *Sustainability* **2022**, *14*, 16287. https://doi.org/10.3390/su142316287

Academic Editors: Nsikak Benson, Akan Williams, Adebusayo Adedapo and Omowunmi Fred-Ahmadu

Received: 27 October 2022
Accepted: 1 December 2022
Published: 6 December 2022

1. Introduction

One of the most significant environmental threats for island nations like Indonesia is marine plastic waste, especially from disposable plastics. Research conducted by Jambeck et al. concluded that Indonesia is second only to China in contributing to global marine plastic waste [1]. Poor waste treatment on land, which eventually ends up at sea through major rivers in Indonesia, is considered the primary source of plastic pollution in the ocean. This finding indirectly concluded that Indonesia is a source of marine plastic waste for surrounding countries. This indication is reflected by the research of Purba et al., who concluded that Indonesia's marine plastic waste drifts to neighboring countries, such as Malaysia and Australia [2].

In addition to contributing to a negative representation of Indonesia in the region, the problem of marine plastic waste is also detrimental to Indonesia as a whole. The hazardous effects of plastic waste on the marine ecosystem or human health are well known [3]. Plastic waste harms the environment and human health [4–7]. The inability of animals to distinguish plastic waste from food causes the plastic to be ingested by marine animals such as seabirds [8], turtles [9–11], stingrays, and whale sharks [12]. In other cases, plastic waste, such as used fishing gear, endangers marine and coastal organisms by ensnaring species such as seabirds [13], seals [14,15], or turtles [16,17]. Regarding this phenomenon, Kühn et al. concluded that by 2015, the number of species affected by cases of ingestion or entanglement in plastics had doubled since 1995, from 267 species to 557 species. If this case is divided by species, then in the case of turtles, the number affected has reached 86–100% (7 of 7 species); for marine mammals, 43–66% (81 of 123 species), and for seabirds 44–50% (203 of 406 species) [18]. Meanwhile, several studies suggested that incomplete

incineration of plastic often releases toxic by-products into the environment that have direct and documented effects on the human brain, liver, lungs, eyes, skin, heart, reproduction, and gastrointestinal systems [19,20], which are linked to adverse health consequences including cancer and respiratory diseases, neurological disorder, damages to immune and nervous systems, and cardiovascular disease [21]. It is concluded that long-term exposure to substances used in the production of plastics, such as acenaphthene, acenaphthylene, and naphthalene, could result in neurological disorders [22] and hemolytic anemia [19].

The government of Indonesia has prepared a comprehensive strategy to tackle the problem of marine plastic pollution through Presidential Regulation 83/2018 on Marine Waste Management. This regulation aims to reduce marine plastic waste by 70% of Indonesia's plastic waste in 2025 by implementing various programs [23]. One of those programs is preparing a regulation on excise duty on plastics. The Ministry of Finance carries out this task through the Directorate General of Customs and Excise. While playing its part in helping national programs overcome plastic waste, the Ministry of Finance is particularly interested in the discourse on plastic excise duty because it would present a new way to increase state revenue. It is calculated that an excise of IDR 200 for every plastic bag (approximately USD 0.013) will contribute to IDR 1.6 trillion (approximately USD 100 million) in the first year of implementation [24,25].

Initially planned to be released in 2018, the Government Regulation on Excise on Plastic (GREP) has yet to be realized, although a final draft has been prepared. Several parties have rejected the plan since the beginning of this discourse, voicing concerns on issues such as the rate of tariffs and the mechanism for earmarking the duty collected. These groups also argued that plastic excise would disrupt and harm the national and related industries that utilize plastic raw materials. There was also skepticism that the government's intention to increase state revenue through excise duty would backfire because of decreased income from the other taxes [26]. These arguments have been supported by the Ministry of Industry, the principal government agency responsible for accommodating the interests of the national industry associations [27]. In 2020, a new dynamic emerged, further delaying the GREP finalization. When the Ministry of Finance presented the draft of the GREP in February 2020, the House of Representatives demanded that the excise object be expanded to include all plastic products.

Currently, there are limited studies on Indonesia's policy on plastic excise. Several existing studies have focused on the issue of the effective excise tariffs rate and public acceptance [28], the effectiveness of plastic excise [29], the effect of plastic excise duty on revenue taxes [26], and the effect of excise on the economy as a whole [30]. The topic of this article is a variation since it tries to examine excise on plastic from the perspective of the public policy formulation process. This article examines the dynamics between groups in preparation for the GREP. Specifically, this research will identify the main parties involved in the negotiation, the issues being discussed, and different perspectives. In light of the request of the House of Representatives to broaden the object of excise, the identification of these determinants will provide the perspective to answer the question of why the government has not yet implemented excise on plastic bags in Indonesia.

2. Literature Review

2.1. Waste Management Hierarchy

Marine plastic waste can be divided into two types [31]. First is plastic waste originating from an overflow or residual activities at sea. This waste refers to plastic waste arising from buildings at sea, such as oil refineries or sea transportation facilities, such as fishing boats, cruise ships, or yachts. This waste can take the form of food wrappers, drink bottles, and abandoned fishing nets. The second is plastic waste originating from land, usually defined as waste that is not managed correctly and eventually drifts or flows into the sea. Among the various types of plastic, disposable plastic, such as plastic bags and straws, is the plastic waste most often found to cause pollution. Ocean Conservancy revealed that every time they carry out beach cleaning activities, the top six positions were occupied by

disposable plastics such as bottles, food wrappers, bottle caps, straws and stirrers, plastic bags, and plastic lids [32].

According to the hierarchy of waste processing, there are five levels of waste processing: prevention, reduction, recycling, return, and disposal [33]. In a graphical form, the five levels are arranged in an inverted pyramid, with preventive measures at the top, the most important, and disposal at the bottom. Preventive action is taken before an item or product becomes garbage by reducing the initial production or adverse effects [34]. Many have argued that policymakers should focus on the prevention stage as it is the most recommended strategy before other actions [35].

According to Lam et al., imposing excise duty is one of the three prevention strategies the government can implement to reduce plastic. Two other strategies are prohibition and voluntary action [36]. Prohibition can take the form of a broad ban or a partial ban. A general ban prohibits using or consuming all types of plastics, such as plastic bags of all sizes, such as those imposed in Puerto Rico, Morocco, and Papua New Guinea. In comparison, the partial ban refers to the provisions prohibiting the use or consumption of particular types of plastic, for example, as implemented in China, which prohibits the use of plastic bags the size of 25 microns or less, or the city of Montreal in Canada, which bans plastic bags the size of 50 microns or less.

Meanwhile, voluntary action is an effort from non-governmental parties to carry out programs to reduce plastic production or consumption on their initiative. One example is the paid plastic bag program by retail stores, where consumers are required to buy plastic bags that are usually provided for free or bring their bags. The success of the three strategies varied. Heidbreder et al. concluded that policies in the form of a ban on consumption are more effective than levies but cannot be politically applied in every case [37].

In many countries, the policy instrument for imposing levies was considered successful, for example, in most European Community countries, namely the Republic of Ireland, Spain, Malta, Denmark, Belgium, Portugal [38], Wales, Scotland, England [39] as well as in China [40,41]. However, failures were also found in, for example, South Africa [42,43], Zimbabwe [44], and Botswana [45].

The levy on plastic bags in the Republic of Ireland is a prime example of the success of this policy worldwide. The Republic of Ireland implemented this policy in 2002. The levy amount was EUR 0.15, which was increased to EUR 0.22 in 2007. This levy is exempt from plastic food bags for hygiene and safety purposes. Exceptions are also given to plastic bags for fish, meat, fresh poultry, fruits, nuts, vegetables, confectionery products, and dairy products whose dimensions are less than 225 mm (width), 345 mm (depth), and 450 mm (length). In addition, the exception also applies to plastic bags sold on ships, planes, and airports and those that can be used repeatedly, which are sold at a minimum price of EUR 0.70 [46].

This policy succeeded in reducing the contribution of plastic bag waste to total waste from 5% to only 0.13% in 2014 [47]. In addition to successfully reducing plastic bag waste, this policy also generated revenue of EUR 200 million for 12 years (2002–2013). The revenue is used for environmental administration and projects, managed through a scheme known as the Environmental Fund to fund environmental protection agencies, environmental improvement activities, and community awareness-raising programs [46]. One of the crucial factors that allowed this policy to succeed was the commitment of high-ranking government officials from the beginning of the implementation in the field to the negotiation process so that it was accepted by the industry [47].

The paid plastic bag policy applies throughout the UK. This policy started in Wales in 2011, Northern Ireland in 2013, Scotland in 2014, and England in 2015. This provision regulates the imposition of a GBR 0.05 per bag for using single-use plastic bags, with a handle and thickness of fewer than 70 microns, in shops or stores employing 250 or more people [48].

Policy in the UK has reduced the use of single-use plastic bags by around 80% in Wales, Northern Ireland, and Scotland since their introduction in 2011, 2013, and 2014,

respectively [49]. As was the case in the Republic of Ireland, this charge for plastic bags received support from the community even since this regulation was still in the discourse stage and increased when it was implemented [50].

A plastic bag levy was introduced in South Africa in 2004 at a rate of ZAR 0.03 (approximately USD 0.0017) per bag for certain types of plastic shopping bags. This policy aims to reduce waste and encourage the repeated use of the same plastic bag [51]. At the beginning of its implementation, this policy succeeded in slightly reducing the use of plastic bags. However, it increased again due to the complexity of implementing the legal framework and law enforcement which could have been more optimal, and community resistance. In addition, people who were surprised by paying for plastic bags over time have become accustomed to it, so plastic bag consumption is again high as before this regulation's implementation [42,52].

Meanwhile, in Zimbabwe, the shopping plastic bag regulation was implemented in 2010. This regulation is intended to change the habits of consumers and retail stores by using paid 30-micron plastic shopping bags. Chitotombe [44] concluded that this policy did not successfully change the habits of the people of Zimbabwe, who continued to use plastic bags even though they had to pay a specific price. From an ecological point of view, the ban worked because it forced retail stores to sell plastic bags. However, the implementation of this policy encountered resistance, especially from the informal sector, which led to the practice of smuggling plastic bags from other countries into Zimbabwe. The plastic bag ban was only effective in the short term, and people are gradually switching back to using plastic bags. The fees are also considered too low, so people need to be motivated to use alternative media.

Botswana implemented regulations on shopping plastic bags that became effective in 2007 and aimed at reducing consumption. This regulation mandates retailers to determine their prices for plastic bags without having a uniform price set by the government. Dikgang and Visser [53] concluded that there was a significant decrease in Botswana's consumption of plastic shopping bags in the first few months after implementing the regulation. This success is believed to be due to the high price of plastic bags. However, this success lasted only a short time due to administrative errors and the inability of the Botswana Government to utilize the collected funds [45].

Powell believed differences in the results occur due to differences in the objectives of one policy with another [54]. Powell said that the imposition of levies on plastic has three different goals, namely: (1) changing consumer behavior, (2) internalizing social costs incurred, and (3) collecting revenue. Powell reminded us that if the application of levies was to change consumer behavior, the number of levies to be determined by the government must be high enough to lead to the reluctance of consumers or the public to pay for it. If the purpose of the levies is to change consumer behavior, then the amount of revenue collected might be minimal. Still, the number of goods produced or consumed will also be minimal. If the purpose of levies is to cover the social costs of the consumption of goods, then the levies must be regulated in such a way as to match the social costs incurred. In cases like this, the focus of the policy is to look for different prices for goods produced, so whether the number of goods has decreased or not is irrelevant. If the purpose of levies is to collect revenue, the government is not interested in reducing the number of goods produced or consumed. Instead, the government will look for specific maximum tariffs that are still affordable and for particular quantities of goods to remain accessible to consumers.

2.2. Presidential Regulation 83/2018 on Marine Waste Management

As mentioned by Vince and Stoett [55], Vince and Hardesty [56], and Godfrey [57], no panacea can answer all the problems of marine waste. Instead, all strategies have to be used as one package. Presidential Regulation 83/2018 adheres to the principle that the marine plastics waste issue must be addressed by mobilizing all resources, combining various actions, activities, legislative approaches, and cooperation with all components of society. In addition to emphasizing the appropriate problem-solving approach, this regulation lists

detailed programs that must be implemented. These programs include targets and parties who are in charge. The programs and strategies to be carried out are listed in the National Action Plan (NAP) for Marine Waste management. Specifically, the following five strategies are presented in the NAP to deal with the problem of marine waste.

1. A national movement to increase stakeholder awareness;
2. Land-based waste management;
3. Waste management on the coast and the sea;
4. Funding mechanisms, institutional strengthening, supervision, and law enforcement;
5. Research and development.

Each of the above strategies is then divided into several programs. Some strategies have one, two, three, and four courses. In total, there are 13 programs on those five strategies. Each program is further broken down into activities with targets or outputs, the implementation period, and the person in charge of the activities. The target or output is the final product of the activity that is expected to be achieved. This output can be from the number of activities, laws, regulations issued, and documents resulting from the study [58]. Sixteen ministries and institutions carry out 59 activities in the NAP, and one of the programs is the excise duty on plastics, where the person in charge is the Ministry of Finance.

Before introducing a comprehensive strategy to tackle plastic pollution as set up in the Presidential Regulation 83/2018, the Ministry of Environment and Forestry in 2016 initiated a program to reduce plastic bag consumption in supermarkets by introducing charges of a minimum of IDR 200 per sheet. There were 22 cities and one province that implemented this program. This program, however, was cut short (February 2016 to June 2016) because of the inability of the ministry to administer the funds collected from the program.

2.3. Government Regulation of Excise on Plastic

The primary reference document of this research is the draft of the GREP, especially the latest version, which has been refined in response to the House of Representatives' request to expand its scope of excisable goods. Overall, the GREP consists of 14 articles. What is important to note is that GREP explicitly states that the object of excise duty is plastic bags, defined as "shopping bags made of plastic with a thickness of 75 (seventy-five microns) or less that are produced to contain, carry, or move goods". GREP provides a concession in which "plastic bags in the form of rolls for fruit/vegetables/meat (carrier bags), product packaging bags (produce bags), laundry bags, plant cultivation bags, and plastic bags for fish farming" are excluded from the said definition of plastic bags.

Regarding the tariff rate, GREP does not provide a specific one. Instead, it refers to a separate Ministerial Regulation set up later to regulate the amount and changes of tariffs. Last but not least, GREP regulates that earmarking will be applied to activities concerning pollution or damage prevention, environmental restoration, the development of plastic recycling industries, or product innovation to replace plastic bags.

2.4. Stakeholders Saliency Theory

The GREP being processed is a part of the government's public policy. This product is thus a goal-oriented action and not random behavior. The GREP is structured to address environmental problems caused by plastic waste, and the formulation of the solution to the problem results from struggles among existing interest groups or stakeholders. Identifying who is involved in a public policy formulation is essential because these actors will determine what kind of public policy will be formulated [59].

Each stakeholder has a different amount of influence in the policy-making process. Therefore, it is necessary to group stakeholders to prioritize attention and policy objectives to certain parties. This identification will also assist in determining the different approaches and treatments for each group based on the current level of importance and urgency. To achieve that goal, this paper uses the concept of saliency, i.e., the focus of attention or level of interest, to specify various stakeholders, as introduced by Mitchell et al. [60].

Saliency is measured on the weight of three determining components, namely power, legitimacy, and urgency. Power relates to the ability of a party to influence other parties or impose their will on different groups in the system. Legitimacy refers to the validity of a party's claim for a particular action and the size of the claim. Urgency refers to the extent to which the claims submitted require attention in terms of time and level of importance. Every stakeholder must have these three elements so that if a party does not have any of these components, that party is not a stakeholder. The presence or absence of these three attributes will form seven types of stakeholders:

1. "Dormant" is a stakeholder with power but lacks legitimacy or urgency;
2. "Discretionary" is a stakeholder with legitimacy but lacks power and urgency;
3. "Demanding" is a stakeholder with only urgency but neither power nor legitimacy;
4. "Dominant" is a stakeholder with power and legitimacy but lacks urgency;
5. "Dangerous" is a stakeholder with power and urgency but lacks legitimacy;
6. "Dependent" is a stakeholder with urgency and legitimacy but lacks power;
7. "Definitive" is a stakeholder with all three elements: strength, urgency, and legitimacy.

Of these seven types of stakeholders, Mitchell et al. suggested that an organization or process should focus on its definitive or core stakeholders. These definitive stakeholders will play an essential role in determining the success or failure of a strategic plan or implementation of a policy. These stakeholders have a legitimate claim to an issue, hold a significant level of power, and are the most passionate about resolving the issue.

3. Methods

Research and data collection were centered in Jakarta because the informants from the ministry and related associations were all located in Jakarta. Due to the COVID-19 pandemic starting in 2020, the author could not have face-to-face meetings with informants. All interviews were conducted by video conferencing and by phone in the period of March to December 2021. Follow-up questions and additional documents were exchanged via short messages and e-mails.

This research collected data from Indonesian plastic stakeholders represented by several Ministries, plastic industry associations, scavenger societies, and environmental NGOs to represent interests between government and non-government. Critical selection criteria for informants included their close involvement in and knowledge of national plastics and excise policy. The interviews were semi-structured using a protocol containing open-ended questions to allow interviewees to express their viewpoints freely. From the government side, the informants came from the Coordinating Ministry for Maritime Affairs and Investment, the Ministry of Finance, the Ministry of Industry, and the Ministry of Environment and Forestry. Meanwhile, the World Wide Fund (WWF), the Indonesia Plastics Recycler Association (ADUPI), The Indonesia Olefin, Aromatic, and Plastics Industry Association (INAPLAS), and Indonesia Waste-Pickers Union (IPI) presented informants from non-governmental organizations.

The interview was conducted in three parts. First, interviews were conducted with key informants from the Ministry of Finance. Thanks to these interviews, access to the latest version of the GREP document was obtained. In addition, first-hand information was obtained regarding the Inter-Ministry Committee (IMC), a negotiation forum for parties related to implementing excise on plastic. These interviews with crucial informants provided information on other key informants to be interviewed from other Ministries, namely the Ministry of Environment and Forestry and the Ministry of Industry. In the end, each of the informants from these ministries recommended several other parties to be interviewed.

There were 19 transcripts, which were the results of interviews with 17 informants. The interviews were recorded, transcribed verbatim, anonymized, and then processed using the thematic analysis method.

4. Results

4.1. Core Stakeholders

The author used the list of participants in the IMC to establish the core stakeholders. The procedures for IMC are regulated in Presidential Regulation number 87 of 2014 (amended by Presidential Regulation Number 76 of 2021) concerning the Formation of Legislation which states that IMC is formed in every process of formulation of government regulations. An IMC consists of the ministry submitting the proposals for the proposed regulation, Ministries related to the administration of law, and all parties related to the substance to be discussed. Based on these rules, ten Ministries were involved in the IMC for GREP, namely the Ministry of Finance, the Ministry of Industry, the Ministry of Environment and Forestry, the Ministry of Maritime Affairs and Fisheries, the Coordinating Ministry for Economic Affairs, the Coordinating Ministry for Maritime Affairs and Investment, the Ministry of Trade, the Ministry of Law and Human Rights, the Ministry of State Secretariat, and the Cabinet Secretariat.

The next step was to measure each participant's saliency elements carefully. The first element is power, or the ability of a party to influence another party or impose its will on another party. The author assumed that all parties in the IMC drafting the GREP could control other parties. Legally, all parties could impose their will on other parties, for example, by refusing to give initial approval to a draft regulation that will be submitted to the President. For this purpose, the author assumed that all IMC members have the same legal authority.

For the second element, namely urgency, the author perceived a clear difference where there were ministries to hasten the completion of the GREP draft. Other parties take a neutral stance, following the direction of development.

For the third element, the author considered the relationship between excise, plastic, and marine waste issues with each ministry's primary duties and functions. Thus, we saw that some did have legitimacy in discussing this plastic excise issue, and others did not. Table 1 below summarizes these findings.

Table 1. Classification of ministries according to saliency.

No	Group	Strength	Urgency	Legitimacy	Type
1	Coordinating Ministry for Maritime and Investment Affairs	Yes	Yes	Yes	Definitive
2	Coordinating Ministry for Economic Affairs	Yes	No	Yes	Dominant
3	Ministry of Finance	Yes	Yes	Yes	Definitive
4	Ministry of Industry	Yes	Yes	Yes	Definitive
5	Ministry of Trade	Yes	No	No	Dormant
6	Ministry of Environment and Forestry	Yes	Yes	Yes	Definitive
7	Marine and Fisheries Ministry	Yes	No	Yes	Dominant
8	Ministry of Law and Human Rights	Yes	No	No	Dormant
9	Ministry of State Secretariat	Yes	No	No	Dormant
10	Cabinet Secretariat	Yes	No	No	Dormant

Thus, the core stakeholders are the Coordinating Ministry for Maritime Affairs and Investment, the Ministry of Finance, the Ministry of Industry, and the Ministry of Environ-

ment and Forestry. For this research, we will classify the four ministries into three groups, fiscal, industrial, and environmental groups.

The first is the fiscal group representing the Ministry of Finance's interest in implementing a fiscal instrument in the form of an excise on plastics. The fiscal group views the plastic excise duty as a fiscal instrument and a product of the government's policies to increase state revenues.

The second group is the industrial group that has firmly refused the plastic excise initiative. This group consists of the Ministry of Industry, which is supported by several industry associations for plastic producers and the recycling industry. This group is interested in protecting the welfare and continuity of the plastic industry, be it producers, users, distributors, or plastic waste processors.

The Ministry of Environment and Forestry and the Coordinating Ministry for Maritime Affairs and Investment represent the interest of the third group, the environmental group. Environmental groups argue that the problem of marine plastic waste must be viewed from the perspective of environmental science by considering the ecological, social, and economic aspects.

4.2. Core Issues

The author processed the interview data and compared it with the agreed draft of GREP to identify the main issues. Overall, the interviews were conducted 19 times, involving 17 informants. In Table 2, we can see an outline of the results of the data analysis based on the interviews. There are 28 codes, and 13 identified themes repeatedly occurred across all groups.

Table 2. Codes and identified themes.

No	Group	Codes	Identified Themes	ID
1	Fiscal	• State revenue from excise • Extensification of excise • Benefit of excise • Problem of plastic bags • Negative externalities • Profit-sharing fund • Tariff rates • Public education • Criteria of excisable goods	• The target of excise duty is to educate the public, not merely to pursue revenue	F1
			• Plastic bags are the most appropriate object of excise	F2
			• Excise is the right strategy to deal with marine plastic waste	F3
			• Earmarking	F4
			• Excise tariff should be accommodating to all	F5
2	Industrial	• Benefit of plastics • Questionable research • Circular economy • Effects of excise to industries • Management of waste • Role of recycling industries • Problem in recycling plastic bags • Paid plastic bags program • Incentives for recycling industries • Rate of excise tariff	• Plastic is not the leading cause of the marine litter problem	I1
			• The problem of marine waste can be solved with a circular economy approach	I2
			• Object of excise should be limited to plastic bags	I3
			• Excise tariff should be minimal so that it will not be detrimental to industries	I4

Table 2. *Cont.*

No	Group	Codes	Identified Themes	ID
3	Environmental	• Causes of marine waste • Control of production of plastics • The role of the producers • Changes in behavior • Excise duty should contribute to community • Recycling of plastic • Problem of single-use plastics • Paid plastic bags program • Rate of excise tariff	• Excise is the right strategy to deal with marine plastic waste	E1
			• Excise should be aimed at changing behavior	E2
			• The object of excise is single-use plastic or plastic bags	E3
			• Excise tariff should be maximized	E4

These identified themes can be divided into two categories. The first type is centered on the argument of the urgency to impose a plastic excise policy (F3, I1, I2, and E1). The second type is arguments about the best technical mechanism for implementing the plastic excise policy in the future. We can put the rest of the themes in the second category.

The four themes in the first type are arguments that reflect two opinions on the plastic excise policy: supporting plastic excise and those against plastic excise. In the author's opinion, these arguments can be grouped into one issue since they are related, although they can be contradictory in spirit.

Meanwhile, in the author breaks down the technical policy discussion into individual issues because the essence of the technical policies are unrelated and require separate discussions, as can be observed in the Table 3 below.

Based on these considerations, we find five core issues as determinants in formulating a plastic excise in Indonesia.

1. The urgency of excise duty in managing the problem of marine plastic waste

Regarding the urgency of implementing the plastic excise policy, there are significant differences of opinion between the fiscal and environmental groups on the one hand and the industrial group on the other.

Table 3. Themes and core issues.

No	ID	Identified Themes	Core Issues
1	F3	• Excise is the right strategy to deal with marine plastic waste	The urgency of excise duty in managing the problem of marine plastic debris
	I1	• Plastic is not the leading cause of the marine litter problem	
	I2	• The problem of marine debris can be solved with a circular economy approach	
	E1	• Excise is the right strategy to deal with marine plastic waste	

Table 3. *Cont.*

No	ID	Identified Themes	Core Issues
2	F1 E2	• The target of excise duty is to educate the public, not merely to pursue revenue • Excise should be aimed at changing behaviors	The goal of excise on plastics policy
3	F2 I3 E3	• Plastic bags are the most appropriate object of excise • Object of excise should be limited to plastic bags • The object of excise is single-use plastic or plastic bags	The scope of plastic excisable goods
4	F5 I4 E4	• Excise tariffs should be accommodating to all • Excise tariff should be minimal so that it will not be detrimental to industries • Excise tariff should be maximized	The appropriate tariff rates
5	F4	• Earmarking	The settings for earmarking

The fiscal group argues that plastic should be subject to excise duty because the elements of excise duty have been fulfilled following the Excise Law number 39/2007. Based on various parties' research, plastics have been proven to hurt humans, animals, and the environmental ecosystem. This fact means that one of the conditions for an item to become excisable goods has been fulfilled, in this case, is the existence of negative externalities. The fiscal group believes that excise duty as a strategy to deal with marine waste will have a more significant impact than existing strategies like paid plastic bag programs in supermarkets. Excise is a fiscal instrument that is intrinsically designed and intended to control the consumption of specific goods. The Ministry of Finance, through the Directorate General of Customs and Excise, has the infrastructure and resources to carry out this function since it is equipped with auditors and investigators that can access the company's books and financial reports, detain or confiscate the stock of goods and even detain anyone deemed to have committed a violation.

The Ministry of Environment and Forestry supported the plastic excise discourse because it realized that plastic waste management must be carried out thoroughly, from upstream to downstream. Environmental activists argued that excise duty should be a priority since existing waste management efforts have been unable to overcome the problem of overproducing plastics by producers.

Meanwhile, the industrial group believed that the problem of marine waste in Indonesia was not caused by plastics but by the failure of Indonesia's waste management system. This group believed that if consumed correctly and responsibly, the plastic waste generated would not become an environmental problem because it can be recycled.

In addition to denying the indication that plastic is the leading cause of marine waste, the industrial group also questioned why plastics should be subject to excise duty. The industrial group believes that the requirements for imposing excise duty cannot be applied to plastics considering the negative impact caused by plastic does not fully apply. Plastic can still be recycled and benefits the recycling industry and scavenger community. Instead, industrial groups argue that the government should solve the plastic waste problem in

Indonesia by improving infrastructure and 3R (reduce, reuse, and recycle) processes to support an excellent circular economy system.

2. The goal of the policy on the excise on plastics

Generally speaking, all parties agreed that implementing excise duty on plastics should be geared toward reducing public plastic consumption. The excise duty imposed on plastic is expected to provide a deterrent effect so that plastic consumption will automatically decrease. The phrases "education" and "behavior changes" repeatedly appeared in the data collected. The elephant in the room during the discussion was centered around the genuine intention of the Ministry of Finance. The industrial and environmental groups feared that excise duty on plastics would only serve the purpose of collecting state revenue.

Meanwhile, the Ministry of Finance has consistently stated that the excise duty on plastics is to help overcome environmental problems caused by plastic waste. The informant from the Ministry of Finance argued that its stance is reflected when it was agreeable to a minimum plastic excise tariff rate suggested by other groups. If the Ministry of Finance only wanted to pursue state revenues, they would have suggested a higher excise rate.

3. The scope of plastic excisable goods

The excise object became the most intense discussion and the final factor agreed upon by all parties in the IMC. Several proposals for plastic excise objects, for example, plastic bottles or packaging, have been offered. The Ministry of Finance proposed single-use plastic, specifically plastic bags, as a criterion after considering various research on problems posed by single-use plastics and implementing levies in several countries.

The environmental group supported the proposal since it reflects its research. It was open to expanding the excise duty to other plastic products but reminded that a study must be carried out on the dire consequences caused by an excise duty on general plastic products to the economy.

Since the beginning of the discussion on GREP, there has been a serious concern in the industrial group that the imposition of excise on plastic bags is the beginning of the imposition of excise on general plastic products. As the supervisor of the industrial sector, the Ministry of Industry is adamant that the plastic excise duty be imposed at a minimum. The Ministry of Industry agrees with applying excise on plastic bags only after intervention from the highest echelon. However, the Ministry of Industry specifically made a reservation that plastic bags should be the sole object of excise duty.

Although the parties have agreed that the object of excise duty is single-use plastic bags, there is still considerable debate about which type of plastic bag meets the single-use criteria. The most significant criticism came from plastic manufacturers and recycling associations, who argued that plastic bags or shopping bags in Indonesia could not be categorized as single-use plastic because these bags were used as wrappers, at least used as garbage packaging bags. After considering all the inputs, especially the reservation from the Ministry of Industry, the selected excise object is decided to be plastic bags the size of 75 microns and below.

4. The appropriate tariff rates

Ministry of Finance explained that it had conducted a simulation and survey to measure the consumers' willingness to pay for plastic bag excise. It is concluded that the acceptable excise rate is IDR 30,000 per kilogram or IDR 200 per sheet of plastic.

Meanwhile, the industrial group wanted minimal plastic excise rates, although they still needed to provide exact figures. This sentiment is understandable because, in principle, the industrial group does not expect any excise duty on plastics. So minimal tariffs will benefit their position.

At first, the Ministry of Environment and Forestry wanted a reasonably higher tariff so that people immediately reduced their consumption. However, it changed its stance after the Ministry of Industry and the Ministry of Finance argued that very high tariffs would affect other economic sectors.

At the end of IMC, all parties agreed on the proposal offered by the Ministry of Finance. All parties accepted this proposed tariff mainly because it reflects the price of plastic bags currently sold in supermarkets so that anxiety in general consumers can be reduced to a minimum. It can be concluded that this tariff is not the maximum rate, nor is it based on calculating the magnitude of negative externalities caused by plastic consumption.

5. The setting for earmarking

At the start of IMC, the Ministry of Finance reminded other groups that the excise instrument has an earmarking feature that benefits all parties involved in the waste management system. Related ministries, plastic industries, and recycling communities can use earmarking to support their programs dealing with waste problems.

Although they could benefit from earmarking, the industrial and environmental groups did not take advantage of earmarking in their negotiations. Lack of attention to earmarking caused the benefits of earmarking not to be fully conveyed to elements in the industrial group. For example, manufacturers' representatives and the scavenger community were not fully informed of the mechanism they should pursue to claim funds from an earmark. The lack of knowledge regarding earmarking was also observed in the Ministry of Environment and Forestry and among environmental activists.

Even though this concept should be the main attraction in discussing plans for implementing plastic excise, there needs to be a more in-depth discussion about earmarking during IMC. As a result, the regulation regarding earmarking in the GREP draft is set generically.

5. Discussion

Developing GREP reflected an excellent process of formulating a public policy involving different interest groups. The three groups involved tried to advance their respective interests, but in the end, what was agreed upon was a mutual agreement. It is observed that, in the beginning, negotiations were conducted against the main background to help tackle the marine debris problem. Thus, policy choices were taken by calculating benefits for the environment first, which was the main reason an agreement could be reached even though there are different perspectives among the groups involved, especially between the fiscal and industrial groups. Apart from that, what can also be observed is the existence of alliances between fiscal groups and environmental groups vis-à-vis industrial groups, especially in discussing the need for a plastic excise policy to be implemented.

Another observation was that the interest groups took advantage of the lessons learned from other countries' initiatives to impose a plastic tax. Ireland's experience is a crucial reference, especially when considering the benefits of earmarking. In addition, the initiatives of the plastic bag tax, which has not been very successful in South Africa, Zimbabwe, and Botswana, were used as a reference when looking for the appropriate tariff rate.

Under these conditions, tough negotiations still resulted in an agreement. There were some suggestions that were defeated, and some were shared. The agreement to limit excise only to plastic bags is in the interest of the industrial group, which the fiscal and environmental groups ultimately accept. Meanwhile, the agreed excise rate of IDR 200 apiece is a mutual agreement that all groups could agree on relatively quickly.

With this agreement, there should be no more obstacles to immediately implementing plastic bag excise in Indonesia. However, this process has been delayed for more than two years since approval was obtained from the House of Representatives in early 2020. Indeed, there was a new problem when the House of Representatives requested that the excise object be expanded, which differs from the mutual agreement between government agencies. The process of drafting government regulations generally consists of three stages: the initiating ministry submitting a plan for drafting regulations, forming IMC, and harmonizing. After the harmonizing is finished, the process is considered completed, and the Cabinet Secretariat will carry out the administrative process to get the signing by the President. However, in the case of plastic excise, the government needs to get approval from the House of Representatives since the law mandates it, as stipulated in Article 4 of Excise Law number 39/2007. The elucidation of this article stipulates that whenever

there is an addition or reduction of excise objects, the government must consult the House of Representatives.

The Ministry of Finance, as the initiating ministry, officially submitted the GREP to the House of Representatives on 19 February 2020. The House of Representatives approves the initiatives, albeit asking the Ministry of Finance to broaden the scope of excise from plastic bags to general product plastic. However, this should not be a problem as the harmonization process has been completed, and approval from the House of Representatives is no longer needed. Even if the government rejects the House of Representatives' proposal to expand excise objects, the regulation can still be applied since the House of Representatives is no longer involved in the process and has no veto on the product. There is no need for further consultation with the House of Representatives. Even though the House of Representatives requests it, there is no longer any obligation for the government to fully comply with the House of Representatives' wishes.

In another scenario, if the government intends to accommodate the House of Representatives request, then there are several options for the government, including:

1. Add several new excise objects. Of course, this will cause challenges from industrial groups which have so far insisted on implementing a limited plastic excise duty. However, the government can resolve this matter internally or raise this matter to the President for decision.
2. Implement a limited plastic excise first but add a provision in the GREP that the excise object will be expanded in due course.
3. Maintain the collective agreement in the IMC, namely applying plastic excise only to plastic bags. Of course, this might cause the House of Representatives to inquire about the government during discussions on the annual budget. However, this problem can be solved by providing acceptable reasons.

All in all, there are many options for the government to handle the situation for its benefit, and it should not hamper the swift implementation of plastic excise if it so wishes. Therefore, the House of Representatives' request to expand excise objects was not the main reason for the delay in implementing plastic excise. The author suggests the following reasons why the implementation of plastic excise has been delayed.

First, the COVID-19 pandemic has weakened the purchasing power of industry as well as the consumer base as a whole. Implementing excise duty is not prudent because it will burden the industry. The choice to be mindful of these factors can be observed when the Minister of Finance announced that the plastic tax would be implemented carefully by considering economic conditions [61].

Second, the Ministry of Finance could always meet excise revenue targets by relying on existing excise objects (tobacco products and ethyl alcohol). Meanwhile, the potential revenue collected from plastic bag excise is relatively insignificant, so there is little incentive for the Ministry of Finance to complete the GREP immediately.

Third, throughout 2020–2021, there was a substantial change in personnel in the Directorate General of Customs and Excise, where the new Director General, Director of Technical and Facility of Excise, and other officials at the Directorate of Technical and Facility of Excise who participated in MIC took the helm from previous personnel.

These factors forced the Ministry of Finance to reconsider implementing plastic excise as a priority that must be met. After successfully finishing the IMC process and acquiring support from other groups, the Ministry of Finance has to deal with fundamental economic considerations and pressures. The cost and benefit analysis dictates that plastic excise can be postponed even longer.

In conclusion, there has been a paradigm shift within the Ministry of Finance regarding the plastic excise initiative. In the IMC process, the paradigm was "plastic excise as a tool to educate the public." During IMC, the fiscal group, as well as industry and environmental groups, put economic benefit in a secondary role because the aim was to reduce the production of plastic waste. This development hurts the environmental group's interest and supports the industrial group's interest. It starkly contrasts the constellation during the

IMC process, where fiscal and environmental groups joined forces to tame the industrial group opposing plastic excise.

6. Conclusions

This research has successfully identified the main stakeholders in the formulation process of Indonesia's policy of excise on plastics. These stakeholders represented the interest of fiscal, industrial, and environmental groups. The fiscal group was represented by the Ministry of Finance, which was assigned by Presidential Regulation 83/2018 to develop a plastic excise policy in Indonesia. The Ministry of Industry and associations of plastic producers and the recycling industry represented the industrial group. Meanwhile, the Ministry of Environment and Forestry, the Coordinating Ministry for Maritime Affairs and Investment, and environmental activists represented the environmental group.

Five main issues were discussed during the negotiation process. Those issues were the urgency of excise duty in managing the problem of marine plastic waste, the goal of excise duty on plastics policy, the scope of plastic excisable goods, the appropriate tariff rate, and the settings for earmarking.

With the delay in implementing the plastic bag excise duty, there is suspicion that there has been a change in attitude from the Ministry of Finance. The Ministry of Finance is suspected of no longer prioritizing environmental protection in the plastic excise plan but instead prioritizing economic calculations. To counter this opinion, the Ministry of Finance must immediately finalize the GREP to apply the plastic excise tax. For this reason, the author suggests the following:

1. At the beginning of implementing the plastic excise, excise on plastic was to be limited to plastic bags as agreed in the IMC process. The expansion of plastic excise objects towards plastic products can be carried out carefully and gradually and considering the right time.
2. Implementing a plastic bag excise tariff of IDR 200 per sheet as agreed in the IMC process. However, this rate must be monitored continuously to increase progressively in the following years.

Author Contributions: Conceptualization, O.I.; methodology, O.I.; software, O.I.; validation, O.I., K.M., S.B. and N.T.; formal analysis, O.I.; investigation, O.I.; resources, O.I.; data curation, O.I.; writing—original draft preparation, O.I.; writing—review and editing, O.I., K.M., S.B. and N.T.; visualization, O.I.; supervision, K.M.; project administration, K.M.; funding acquisition, O.I. and K.M. All authors have read and agreed to the published version of the manuscript.

Funding: This study is funded by the Doctor Publication Grant Program of the Directorate of Research and Development, Universitas Indonesia, under Contract Number: 915/UN2.RST/PPM.00.03.01/2020.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

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