



Initiation of Low Carbon Economic Stimulus Policy on MSME Waste Management Post-Covid-19 in Indonesia

Mario Rosario Wisnu Aji^a, Risanda A. Budiantoro^b, Citra Augustina Sumarsa^c, Febrianur Ibnu Fitroh Sukono Putra^d

^a Faculty of Business and Economics, Universitas Atmajaya Yogyakarta, Indonesia.

^b Faculty of Economics and Business, Universitas Dian Nuswantoro Semarang, Indonesia.

^c Regional Secretariat Bureau of DKI Jakarta Provincial Government, Indonesia.

^d Faculty of Economics and Business, Universitas Dian Nuswantoro Semarang, Indonesia

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The problem of waste management has become a concern for almost all countries, including Indonesia. In addition, on the other hand, Indonesia also still needs strengthening in the direction of the MSME sector. Therefore, the Ministry of National Development Planning/Bappenas, through the Directorate of SME and Cooperative Development took the initiative to establish a low-carbon economic stimulus program aimed at the MSME sector to improve waste management and restore environmental damage in Indonesia as well as improve the welfare of MSME. This study aims to formulate an ideal model in providing low-carbon economic stimulus to MSME to create sustainable economic development using a secondary data approach. This study found that the low-carbon economic stimulus can be a concrete and solution step from the government as a credit risk management program in providing financing in creating MSME management based on sustainable development in waste management provided that stakeholders can maintain coordination and seriousness carrying out their roles and responsibilities.

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INTRODUCTION

The challenges of society 5.0 are becoming more complex than the previous generation. Society 5.0 itself was first raised by the Japanese prime minister's office by releasing a concept video of society 5.0 on September 21, 2018. This challenges arises due to an increase in economic growth, people's living standards, and the explosion of the population with all their financial needs. On the other hand, the availability of a living environment is increasingly limited, coupled with worsening environmental damage making the social problems faced will become more and more severe—complex (Marlina et al., 2020). Such a condition becomes an irony for economic development; on the one hand, it is progressing financially, but on the other hand, environmental conditions are deteriorating.

Directorate of SME and Cooperative Development (2020) took the initiative to establish a low-carbon economic stimulus program aimed at the MSME sector to improve waste management and restore environmental damage in Indonesia. This is justified by Bebasari (2020), who emphasizes the role of MSMEs in waste management to become a comprehensive solution that is effective, efficient, and mutually beneficial and makes these MSMEs more prosperous and equitable in a sustainable manner. The initiation process of this stimulus is proposed so that MSME can apply for soft loans, grants and obtain assistance programs for the strategic development of infrastructure and waste management capacity.

LITERATURE REVIEW

Government Policy in Overcoming the Covid-19 Pandemic

Several short-term solutions can be implemented to maintain the existence of MSME actors by considering strict health protocols in carrying out economic activities by MSMEs, delaying debt or credit payments to maintain MSME financial liquidity, financial assistance for MSMEs, and structural policies (Pakpahan, 2020; Sugiri, 2020). This realization will be provided in the form of a financial assistance program to recover the national economy due to the impact of the Covid-19 pandemic (Soeprapto, 2020). To minimize the negative effects of Covid-19, the government has issued various policies aimed at the

sustainable management of MSMEs:
Table 1. Government Policy for MSME, source: Financial Service Authority (2021)

Policy	Goals	Information
Fiscal Stimulus	Encouraging economic growth	<ul style="list-style-type: none"> Exemption of income tax (PPH Article 21) Provide a delay in the payment of import income (PPH Article 22) Provide tax relief for 60 percent so as to provide cash flow space for MSME actors (PPH Article 25) Provide tax exemption for MSME actors engaged in the tourism sector
Non-Fiscal Stimulus	Easing export and import activities	<ul style="list-style-type: none"> Encouraging MSME actors with a good reputation to be able to carry out international trade Reduction (simplification) of limited restrictions on international trade activities Establish a national logistics system to accelerate international trade activities
Financial stimulus	Encourage financial activity	<ul style="list-style-type: none"> Providing relaxation and credit slack Providing relaxation of social security program contributions for MSME actors affected by Covid-19

Furthermore, this research aims to formulate an ideal model in providing low-carbon economic stimulus to MSME to create sustainable economic development using a secondary data approach. This research also has an element of novelty by having a vision for the government to provide a stimulus to MSMEs affected by the COVID-19 pandemic while improving environmental conditions in terms of waste management.

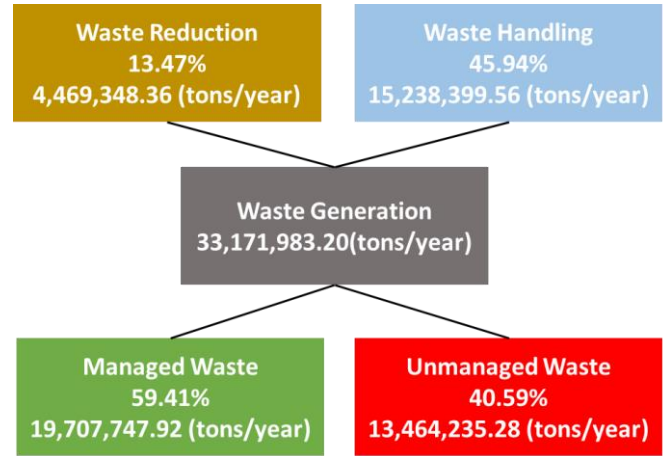
MSME Actors

Economic development activities must be based on broad community participation, especially MSME actors (Heliantina, 2017). This is done to encourage the real sector considering that MSMEs are the foundation of the national economy that have a significant influence on the national economy. For this reason, it is important to define and establish criteria for MSME actors that are universally applicable. However, the problem is that there is no standard and universally applicable definition in Indonesia. So according to Law no. 20 of 2008 concerning Micro, Small and Medium Enterprises classifies this sector by considering the value of net assets owned and the value of sales proceeds, with the following details:

Table 2. Definition and Criteria for Micro, Small and Medium Enterprises, source: Law Number 20 of 2008 concerning Micro, Small and Medium Enterprises.

Enterprises Scale	Definition and Criteria
Micro Business 62.106.900 unit (98,70 percent)	<ul style="list-style-type: none"> Is a productive business owned by an individual or an individual-owned business entity that meets the applicable micro-enterprise criteria (generally a type of home industry consisting of 1-4 people) The total net worth owned in this sector reaches a maximum of IDR 50 million (this amount does not include land and buildings from the place of business). Get maximum sales in one year of IDR 300 million.
Small Business 757.090 unit (1,20 percent)	<ul style="list-style-type: none"> Is a productive business with operations carried out independently by individuals or individually owned business entities that are not included in subsidiaries or branches of company branches directly or indirectly from medium or large businesses (in small businesses, the number of workers employed is approx. 5 - 19 people) Total net worth owned in this sector with a range of IDR 50 million to a maximum of IDR 500 million (this amount does not include land and buildings from the place of business) Get sales results in one year with a range of IDR 300 million to a maximum of IDR 2.5 billion.
Medium Business 5.627 unit (0,09 percent)	<ul style="list-style-type: none"> Is a productive business with operations carried out independently by individuals or business entities that are not subsidiaries or other branches of companies that are a direct or indirect part of either owned or controlled by small and large businesses (in small businesses, the number of workers employed is as much as approximately 20-99 people) Total net worth owned in this sector with a range of IDR 500 million to a maximum of IDR 10 billion (this amount does not include land and buildings from the place of business) Get sales results in one year with a range of IDR 2.5 billion to IDR 10 billion

and Forestry in 2020, throughout Indonesia (275 districts/ cities), there were still 13.4 million tons of unmanaged waste or 40.59 percent of the total waste in 2020, which reached 33.1 million as shown in Picture 1 below:



Picture 1. Indonesia Waste Management Performance 2020, source: Ministry of Environment and Forestry (2020)

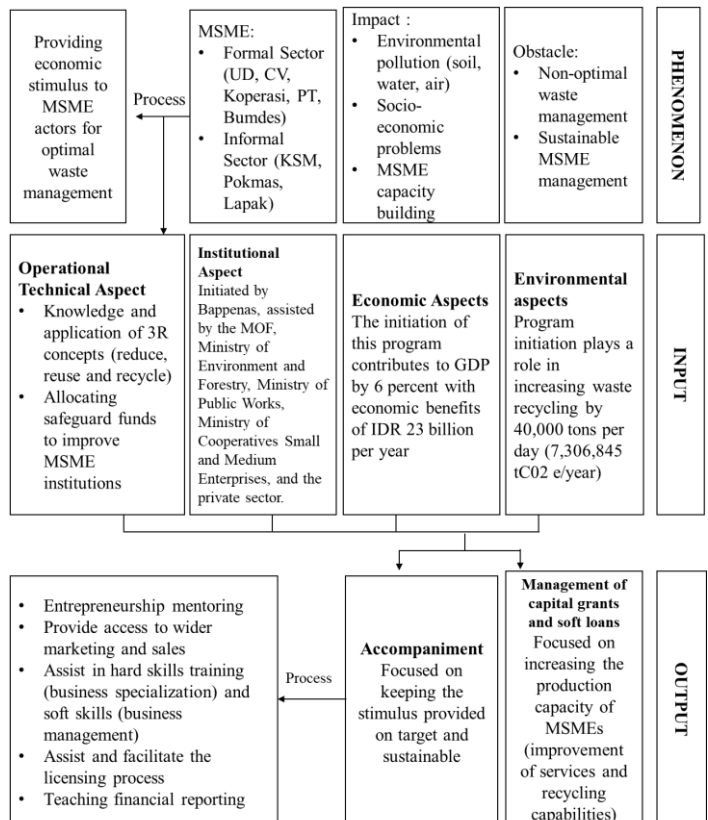
METHOD

This study uses secondary data to formulate an ideal model for providing low-carbon economic stimulus to MSME to create sustainable economic development. The source of the data in this study was obtained through various reports and publications by multiple agencies that have direct policies and are technical stakeholders in the implementation of the stimulus program, such as Ministry of National Development Planning, Ministry of Public Works, Ministry of Environment and Forestry, Ministry of Industry, Ministry of Cooperatives Small and Medium Enterprises, Investment Coordinating Board (BKPM) and Local Governments.

The focus of this research is to conduct an in-depth analysis of the preparation and development of providing low-carbon economic stimulus to MSME initiated by Ministry of National Development Planning in collaboration with various stakeholders involved. This service will be a concrete and solution step from the government as a credit risk management program in providing financing in creating MSME management based on sustainable development in waste management.

This research begins with the phenomenon that waste management is not optimal. Based on data compiled from the Ministry of Environment

Ministry of National Development Planning initiated the provision of economic stimulus to MSME so that waste management can be optimal to support sustainable economic development through MSME and have a multiplier effect on the environment. The flow of the model for the low-carbon economic stimulus can be seen in Picture 2 below:



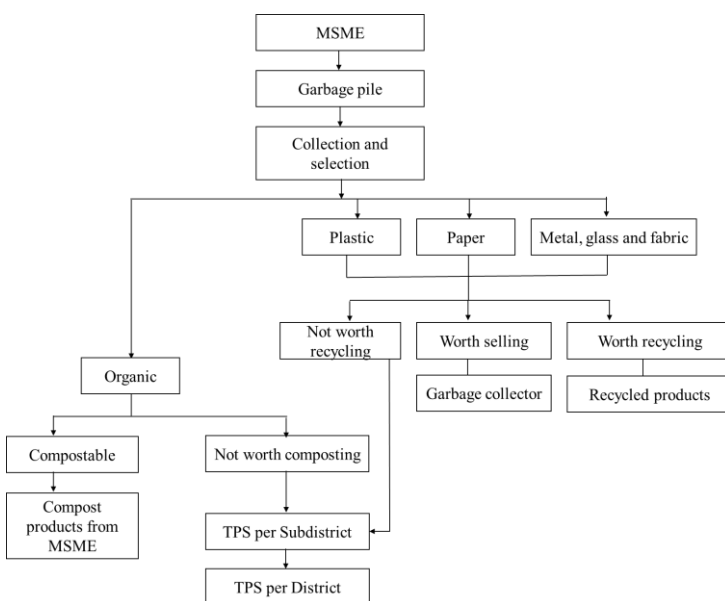
Picture 2. Creation of Low Carbon Economic Stimulus Modeling, source: Directorate of State Finance and Monetary Analysis (2021)

RESULT AND DISCUSSION

Waste Management

The policy initiation initiated by Ministry of National Development Planning is a fundamental process related to improving waste management through economic stimulus activities. This waste management needs to be done because no matter how big and good the economic stimulus is, it will not provide business incentives to the business sector if the ecosystem in waste management is not comprehensively addressed (Aziz et al., 2019). Business actors need economic stimulus in the form of financing and business assistance. The stimulus is helpful, conditions, and grows business actors to be able and willing to manage the waste system, especially in regulations and policies, partnership systems, and payment mechanisms.

In managing the waste produced based on MSMEs, the initiation carried out by Ministry of National Development Planning becomes a technically carried out policy and program that demands an active role from MSME in waste management so that it can determine the success of its implementation (Maulida & Yunani, 2017). MSME are empowered non-instructively to increase the knowledge and ability of the community in identifying, planning, and completing their waste management (Picture 3).



Picture 3. MSME Waste Management Scheme, source: Education and Training Center for Roads, Housing, Settlements, and Regional Infrastructure Development (2018), modified

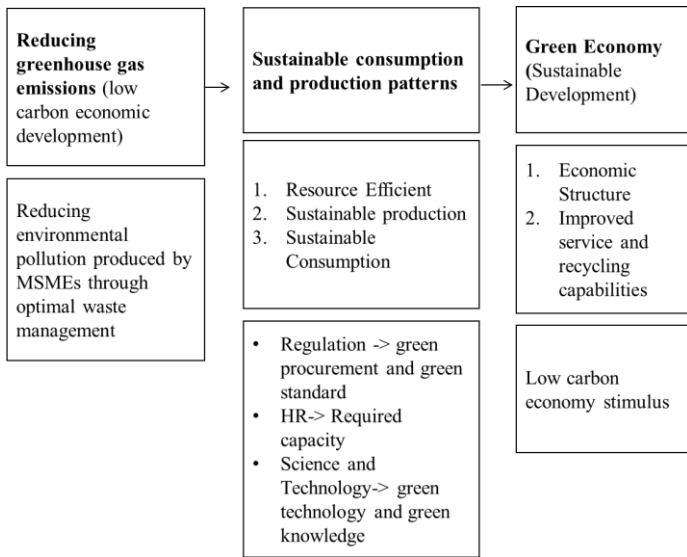
Stimulus of Low Carbon Economy as Sustainable Finance

The Government of Indonesia is committed to fully supporting global efforts in the SDGs. So that the issue of sustainable economic development has become the focus of attention from the Government of Indonesia due to the widespread problem of declining quality of life, widening social inequality, and climate change and their inherent implications (Financial Service Authority, 2021). One of the implementations is realized through the initiation of this low-carbon economic stimulus. The emphasis of this low-carbon economic stimulus refers to:

Stimulus of Low Carbon Economy as Sustainable Finance		
Social Aspect (Implementation of the MDGs)	Economic Aspect (Green Economy Governance)	Environmental Aspect (Environment and Diversity)
1. Equity 2. Health Provision 3. Education Provision 4. Security Provision 5. Housing Provision 6. Population Preparation	1. Economic Structure 2. Consumption and production patterns 3. Regulatory and institutional framework 4. State Financial Capacity	1. Clean water supply 2. Quality of life 3. Climate change 4. Biodiversity

Picture 4. Stimulus Aspects of the Low-Carbon Economy as Sustainable Finance, source: (Perkumpulan Prakarsa, 2014), modified

In practice, there are still several obstacles faced in carrying out sustainable development financing, resulting in less than optimal sustainable financing, including (Financial Service Authority, 2021): (1) there is no taxonomy of the economic sector that is classified as environmentally sustainable; (2) still weak stakeholder awareness ; (3) schemes and instruments of sustainable financing are still limited; (4) the cost of issuing financing instruments is relatively high. In general, the framework of sustainable development requires the seriousness of all stakeholders involved concretely and gradually, as shown in Picture 5 below:



Picture 5. Stages of Initiation of Low Carbon Economic Stimulus, source: (Perkumpulan Prakarsa, 2014), modified

Description of Economic Stimulus Initiation

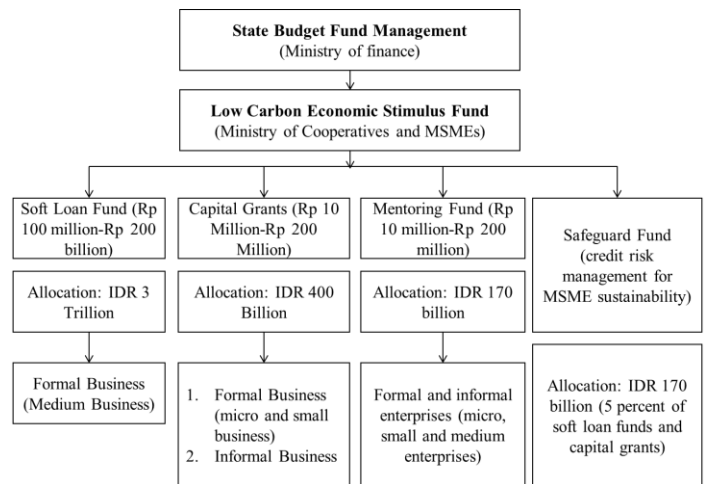
According to the Directorate of SME and Cooperative Development (2020), the recommended economic stimulus programs to be distributed to MSME are (1) equipment grants and soft loans, which are focused on meeting the needs of MSMEs in increasing their production capacity to improve services and expedite the recycling process; (2) MSME capacity building program through mentoring, which is focused on proposing waste collection and transportation infrastructure.

According to the Directorate of SME and Cooperative Development Bappenas (2020), the amount of this economic stimulus is included in the National Economic Recovery Program through the Government Work Plan, with details as follows:

Table 3. Classification of Low Carbon Economic Stimulus, source: Directorate of State Finance and Monetary Analysis (2020); Secretary General Ministry of Finance, (2020b)

Types of Economic Stimulus	Allocation	Targets
Equipment Grant funds	Rp 400 billion	Targeted to be distributed to 5,000 MSME actors (formal and informal) <ul style="list-style-type: none"> • 4,000 MSME waste bank • 500 MSME managing TPS 3R • 500 other MSMEs engaged in waste management
Soft loan funds	Rp 3 billion	Targeted to be distributed to 1,000 formal sector business activities in the middle class
Assistance funds	Rp 170 billion	It is targeted that it will be given to all MSME actors who receive equipment grants and soft loans, so that the utilization of the economic stimulus can be right on target

In addition, the Ministry of Finance has also allocated related to safeguarding funds to increase the capacity of local governments to improve their performance in law enforcement and reform of proper and equitable financing (Picture 6). The economic stimulus policy was also carried out as a form of credit risk management to create a multiplier effect for MSME. They manage waste by minimizing fears of not being able to pay loans.



Picture 6. Low Carbon Economic Stimulus Fund Program, source: Directorate of State Finance and Monetary Analysis (2020); Secretary General Ministry of Finance (2020b); Secretary General Ministry of Finance, (2020a)

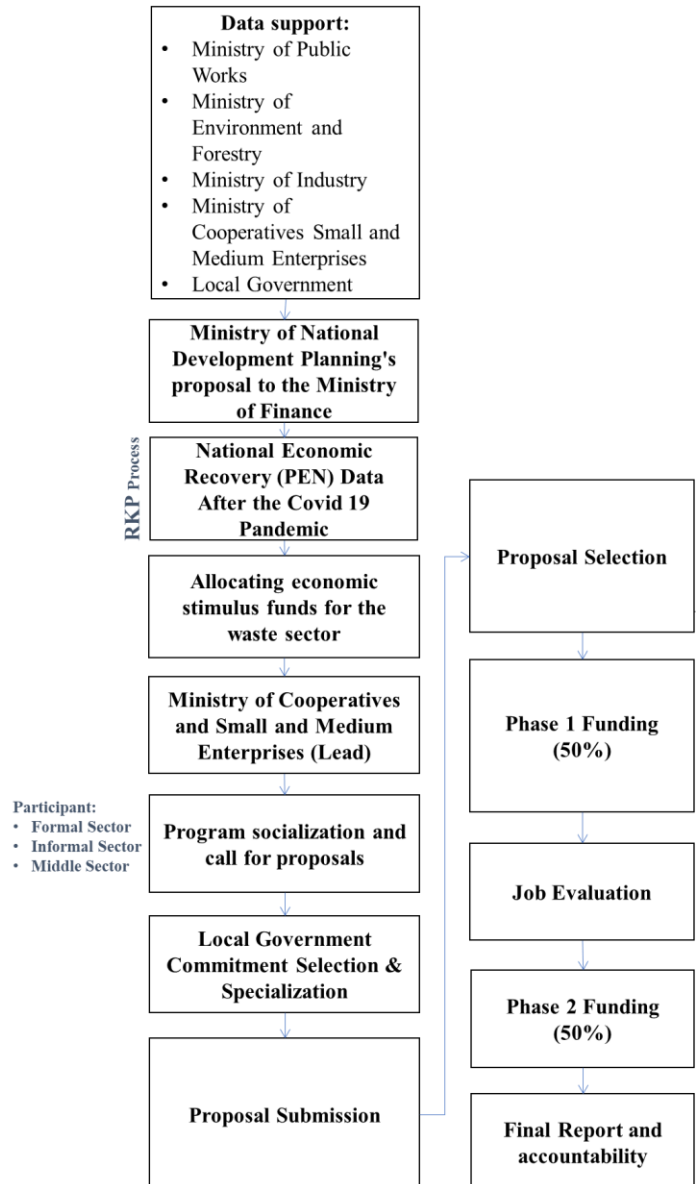
Concerning the object of the initiation of this economic stimulus, it is aimed at: (1) the informal sector (industries or waste or recycling businesses that do not yet have official business legalities following applicable regulations such as KSM, Pokmas Lapak); (2) the formal sector (industrial or waste or recycling business that already has official business legality following applicable regulations such as UD, CV, PT, etc.). The selection of MSMEs in this sector is relatively large, where the number of MSME engaged in TPS 3R management is estimated to reach 655 units and MSMEs engaged in waste bank management as many as 4,212 units (Ministry of Public Works, 2021 and Ministry of Environment and Forestry, 2021). For MSME who wish to become partners in the initiation of low economic stimulus policies for both equipment grants and soft loans, they must meet the following requirements:

Table 4. Requirements for MSME to Apply for Economic Stimulus, source: Directorate of State Finance and Monetary Analysis (2021)

Equipment grants and soft loan funds		Assistance fund
Informal Business	Formal Business	Medium Enterprise
Create and submit proposal applications	Create and submit proposal applications	Create and submit proposal applications
Submit a letter of interest and a DPA report for local government programs that support the improvement of MSME performance in waste management, especially those related to the achievements of the Jakstranas program	Submit a letter of interest and a DPA report for local government programs that support the improvement of MSME performance in waste management, especially those related to the achievements of the Jakstranas program	Submit a letter of interest and a DPA report for local government programs that support the improvement of MSME performance in waste management, especially those related to the achievements of the Jakstranas program
<ul style="list-style-type: none"> Have a certificate of business truth from the Village Head Manage business licensing so that there is an increase in status to become a formal business actor 	<ul style="list-style-type: none"> Have business legality 	<ul style="list-style-type: none"> Meet the requirements of the LPDB PEN program (3 percent and are members of a cooperative) Meet the requirements of real cooperative loans and savings and loans (1 – 7 percent, and are members of cooperatives) Fulfilling strategic SME loan requirements and becoming a government priority
The business activity has been going on for at least one year	The business activity has been going on for at least two years	The business activity has been going on for at least one year
There are recommendations from related associations	There are recommendations from related associations	There are recommendations from related associations

Economic Stimulus Initiation Mechanism

Basically, Bappenas as the initiator of the low-carbon economic stimulus program has drawn up the mechanism scheme as shown in Picture 7 below:



Picture 7. Economic Stimulus Initiation Flow By Bappenas, source: Directorate of SME and Cooperative Development (2020)

The mechanism for the low-carbon economic stimulus proposed by Bappenas is still considered general, so in this study, a more detailed modification is proposed, as shown in Picture 8. Citing the concepts in the Handbook for the Preparation of Proposed Activities financed from Foreign Loans (2020), changes need to be made. The changes made are by using several detailed assessments such as feasibility assessment, improved readiness, and fulfillment of readiness. The transfer of funds was also carried out in the amount of 70-30 to provide great motivation for MSMEs to work optimally from the beginning.

The proposed mechanism in this study starts with the socialization and selection of proposals from MSME to Ministry of National Development

Planning that meet the existing criteria and requirements. The role of other stakeholders, such as the Ministry of Environment and Forestry, Ministry of Industry, Ministry of Public Works, business consultants, local governments assisting Ministry of National Development Planning in preparing program proposals to the Ministry of Finance as well as helping the Ministry of Cooperatives Small and Medium Enterprises in carrying out socialization and selection of MSME proposals that want to become program partners. The selection process for proposals proposed by MSMEs is selectively screened with some detailed assessment so that later their implementation can be right on target. One of the considerations is the products produced by MSMEs that can support business continuity and the preparation of MSME databases per region so that the selection process can run effectively and efficiently. In distributing the allocation of economic stimulus funds by the Ministry of Cooperatives Small and Medium Enterprises with business assistant consultants for ensuring that the absorption and use of funds can run following technical guidelines so as to provide a multiplier effect in increasing production capacity, institutions, and sustainability of the operations of MSME (Picture 8).



Picture 8. Economic Stimulus Initiation Flow Proposed, source: Handbook for the Preparation of Proposed Activities financed from Foreign Loans (2020), modified

The distribution process of this economic stimulus is carried out in two stages, of which 70 percent can be disbursed at the beginning after MSME who pass the selection sign a cooperation contract. Then the Ministry of Cooperatives Small and Medium Enterprises conducts monitoring and evaluation related to the use of economic stimulus funds. Furthermore, the second phase of funding is 30 percent. It ends with a final report on program implementation by MSME to accompanying consultants from the Ministry of Cooperatives Small and Medium Enterprises. Expectations from the initiation of economic stimulus, in the form of (Pratiwi, 2020): (1) mentoring and evaluation of the implementation of MSME ; (2) expanding access to

marketing and sales so as to increase market share; (3) providing soft skills training in the form of business management and hard skills in the form of business specialization to MSME in order to increase competitiveness; (4) assisting and providing business licensing facilities for MSME. The benefits of initiating this stimulus are classified in:

Table 5. The Benefit of Economic Stimulus Initiation,
source: Azizah et al., (2020); Directorate of SME and Cooperative Development (2020)

Aspect	Benefits
Environmental Aspect	Can increase the volume of recycled waste to reach 40,000 tons per day. This value is equivalent to a reduction in emissions of 7,306,845 tCO ₂ e per year or 146 million CO ₂ e per 20 years.
Economic Aspect	From recycling waste per day, it generates economic benefits of Rp 23 trillion per year. Indirectly, the benefits are also felt by large companies related to the waste recycling supply chain originating from MSME actors
Socio-economic Aspect	It can increase job creation by 15,000 to 75,000, meaning that the waste recycling industry is able to create 1,000 new companies with 3 million workers throughout Indonesia. In addition, 850 thousand scavengers will feel an increase in welfare.
Business operational aspects	<ul style="list-style-type: none"> • Become a means of increasing knowledge and implementing the 3R concept as an integrated waste management. • The preparation of safeguard funds is a strategy for the government in implementing risk management programs related to law enforcement and financing reforms that are appropriate, equitable and sustainable.

CONCLUSIONS

The low-carbon economic stimulus is a sustainable economic development solution to the problem of suboptimal waste management by MSME in Indonesia. This program is a concrete and solution step from the government as a credit risk management program in providing financing in creating MSME management based on sustainable development in waste management. It is hoped that micro and small business actors who receive these benefits can grow and develop so that they can become more prosperous, independent, tough, and independent and run their businesses in a sustainable manner. The success of this low-carbon economic stimulus is determined by the seriousness of each stakeholder in carrying out their roles and responsibilities as well as possible.

In particular, considering the benefits provided by the low-carbon economic stimulus, the

Ministry of Cooperatives Small and Medium Enterprises is expected to immediately realize the financial assistance needed by MSME who are experiencing sluggishness due to the Covid-19 pandemic. To optimize the low-carbon economic stimulus assistance to MSME, local governments must coordinate with the central government through the Ministry of Cooperatives Small, and Medium Enterprises. The broader the scope of this low-carbon economic stimulus, the better waste management by MSMEs will be to realize sustainable economic development and increase their contribution to the regional economy.

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