

The Effectiveness of Environmentally Friendly Business Strategies: Implementing SDGs-12 in Building the Economy in Central Lombok Regency

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ABSTRACT

Keywords:

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Background: The tourism industry plays a crucial role in contributing significantly to the economy, particularly through increased tourism activity, increased cash flow, and the potential for increased local income. This study aims to analyze the influence of venue attributes on customer satisfaction at a traditional Balinese dinner (megibung) at The One Legian Hotel.

Method: This study was conducted over three months at the research location, One Legian Hotel, which conducted a two-part study. First, a descriptive research approach was used to determine respondents' perceptions of venue attributes. Second, a correlational research approach was used to analyze the influence of venue attributes on guest satisfaction during the Mengibung event.

Results: The results showed that guests rated the service as very satisfactory, the decor very beautiful, the price very reasonable, the food very delicious, the ambiance very good, and the facilities very complete. Meanwhile, guests had a high overall satisfaction score of 3.62 (very satisfied). Of the six place attribute variables, there is a significant positive impact ($p < 0.05$) on satisfaction: price (X3) with 1 price indicator in relation to dinner quality, atmosphere (X5) with 1 place atmosphere indicator, and food (X4) with 2 indicators: appearance and color.

Conclusion: High customer satisfaction leads to increased loyalty and repeat visits, ultimately contributing to the growth of the events industry and increased revenue for businesses and the surrounding community. Therefore, events like megibung not only provide a quality tourism experience but also improve the economic well-being of the community through job opportunities and increased income.

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INTRODUCTION

Efforts to advance and improve human civilization continue to this day. This progress encompasses various aspects of life, including technology, economics, and improving the standard of living. Currently, the focus of global development is on sustainable initiatives aimed at environmental protection. (Dian Pratama, Nofel Andriawan 2019) In all existing sectors, including health, education, and the economy, all are oriented toward sustainability and environmental preservation. Sustainability, a global and national commitment to improving community well-being, is reflected in the SDGs, which encompass 17 global goals (Dr. Ir. Taufik Hanafi 2022) and The Sustainable Development Goals are a set of The goals set by the United Nations (UN) aim to promote a better and more sustainable life for everyone worldwide. (Jogja Dataku 2022). The 17 SDGs are interrelated and mutually supportive to address various global challenges. One of the goals of sustainable development is to ensure and guarantee responsible production and consumption patterns.

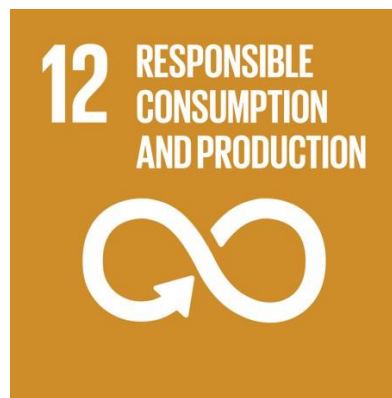


Figure 1.SDGs 12

Source: SDGs Indonesia

The program in the SDGs is a development agreement that refers to human rights and equality. The targets of Policy Program XII aimed at achieving the goal of ensuring sustainable production and consumption at the national level include the following components: (1) improving environmental monitoring mechanisms and information systems, increasing environmental management capacity, and comprehensively addressing environmental regulations, disputes, criminal acts, and civil cases; (2) improving water quality and air quality; (3) increasing land and forest cover by strengthening forest rehabilitation initiatives, expanding vegetation cover, especially in urban areas, rehabilitating critical and abandoned land, mitigating ecosystem damage, and restoring land and forest cover in ex-mining areas, B3 contaminated locations, and coastal and marine areas; (4) management of hazardous and toxic materials (B3). At the provincial level, the focus is only on the percentage of food waste



Figure 2. Indikator SDGs

Sumber: SDGs Indonesia

The presentation of SDG 12 in Indonesia has only reached the provincial level, this is due to several factors: (1) The implementation of SDG 12 in Indonesia is through cooperation between the central government and regional governments. As a result, information and data regarding SDG 12 are only available up to the provincial level; (2) SDG 12 has a number of significant indicators related to consumption and production, such as the use of renewable energy, waste reduction, and others.

Sustainable Natural Resources in 2021, Indonesia successfully increased the use of sustainable natural resources by 12.1% of total natural resource use. (Dr. Ir. Taufik Hanafi 2022) However, in 2024, the achievement of SDGs 12 in Indonesia still has not reached the expected target. The 13th Vice President of the Republic of Indonesia, Ma'ruf Amin, stated that the achievement of SDGs in Indonesia in 2024 was 62.5%, which means there is still 37.5% of the target that has not been achieved (Indonesia 2024).

So this becomes a shared homework, how the program is achieved according to the expected target, because this will affect many aspects, including the economy. Poverty is still an obstacle for school-age children to continue their education (Maharani et al. 2024). Many have to sacrifice education to help the family economy. As a result, many young people become informal workers at home and abroad (Baiquni, M. 2025). One of them is from Central Lombok Regency which is the fourth highest contributor of migrant workers in Indonesia (Data 2025). Based on data from the Indonesian Migrant Workers Protection Agency (BP3MI), 10,840 migrant workers in Central Lombok received placement in 2023, making Central Lombok the fourth largest contributing district for migrant workers in Indonesia. This shows that there are still many people who have not felt the benefits of economic development so that the potential in Central Lombok has not been optimally developed.

Central Lombok's potential significantly impacts the economy. The agriculture, forestry, and fisheries sectors remain the largest contributors to the Gross Regional Domestic Product (GRDP) in Central Lombok, with an estimated 25.07% contribution in 2023. Rice and corn are the primary commodities in Central Lombok. Rice production is around 500,000 tons annually, but corn production has decreased significantly from 179.03 tons in 2022 to 145.21 tons in 2023.

Table 1. Corn Harvest Area by Harvest Type in West Nusa Tenggara, 2020-2024

| Jenis Panen | Uraian | Periode | | | | |
|---------------|----------------------|---------|--------|--------|--------|-----------------|
| | | 2020 | 2021 | 2022 | 2023 | 2024* (Jan-Sep) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Panen Hijauan | Luas Panen (ribu ha) | 4,87 | 4,72 | 4,73 | 4,23 | 2,86 |
| | Persentase (%) | 3,09 | 2,79 | 2,20 | 2,15 | 1,85 |
| Panen Muda | Luas Panen (ribu ha) | 7,07 | 7,75 | 14,12 | 12,99 | 6,82 |
| | Persentase (%) | 4,49 | 4,57 | 6,57 | 6,62 | 4,40 |
| Panen Pipilan | Luas Panen (ribu ha) | 145,56 | 156,99 | 196,06 | 179,03 | 145,21 |
| | Persentase (%) | 92,42 | 92,64 | 91,23 | 91,22 | 93,75 |
| Total | Luas Panen (ribu ha) | 157,51 | 169,46 | 214,91 | 196,25 | 154,89 |
| | Persentase (%) | 100,00 | 100,00 | 100,00 | 100,00 | 100,00 |

Source: Central Statistics Agency of West Nusa Tenggara Province (Central Statistics Agency of West Nusa Tenggara Province 2024) (Marsono 2025)

The condition of abundant natural resources is a privilege to improve human resources starting from education, economic and social if managed with maximum strategy. With the existence of SDGs as sustainable development is appropriate because it supports several programs/policies, but in some points contained in it, including point 12 the percentage only reaches the provincial level so that researchers question the maximization of sustainable development especially in point 12 which is also related to Clean Water and Sanitation (SDGs 6), Clean and Affordable Energy (SDGs 7), Industry, Innovation and Infrastructure (SDGs 9), Action on Climate Change (SDGs 13), Life on Water (SDGs 14), and Life on Land (SDGs 15).

This research study addresses a complex situation, a multidimensional crisis that has impacted various issues within society. This requires a precise approach to address each issue to overcome the uncertain future. These include the effectiveness of SDGs-12 and how to utilize natural resources, focusing not only on abundance but also on economic and social well-being. This has prompted

researchers to conduct socio-humanitarian research to examine and examine social events that are interdisciplinary in nature. Cross-disciplinary here refers to the intersection of disciplines: sociology, economics, health, politics, information technology, humanities, and communication sciences. Interdisciplinary collaboration is therefore necessary to build a shared understanding of the scientific vision of environmentally friendly business strategies for implementing SDGs-12 in developing the economy of Central Lombok Regency.

METHOD

. This research employs a qualitative approach, employing both case studies and library research. These two approaches are used because the desired outcomes are broad, specifically the concept of SDGs involvement, specifically point 12, in relation to Natural Resources and Human Resources. A study will then be conducted to examine the implementation of SDG point 12 in the economic development of Central Lombok Regency. The results of this research report will include excerpts from observations, interviews, field notes, photographic documentation, and other relevant materials.

The methodology used for data analysis in this study relies on the principles of inductive-deductive techniques, which combine descriptive and comprehensive narratives presented in a naturalistic style. This method aims to concisely explain empirical data obtained from observations, interviews, documentaries, and artistic sources. During the data analysis process, specific steps were taken to evaluate the collected information, allowing the researcher to use it as a basis for further research.

RESULTS AND DISCUSSION

The Effectiveness of SDGs-12 in Building the Economy in Central Lombok Regency Studying the effectiveness of SDGs-12 in building the economy in Central Lombok Regency is closely related to the relationship pattern between government sectors, communities and stakeholders who care about sustainability issues as an impact of development. So that the implementation of SDGs-12 lies in the integration pattern of various aspects that can be studied and analyzed as determining factors in achieving the expected targets, which include aspects of government policies and regulations, community participation, infrastructure, technology and economic aspects.

SDGs-12 (Sustainable Development Goal 12) focuses on responsible consumption and production. This goal aims to ensure sustainable, efficient, and environmentally friendly consumption and production patterns, while also aiming to create a balance between economic growth, social welfare, and environmental protection. The Central Lombok Regency government's policies in supporting and implementing the SDGs have been hierarchically structured through the enactment of Indonesian laws and regulations, and are included in the in the National Medium-Term Development Plan (RPJMN) and regulated through various laws and regulations.

An important event as an initial milestone in the implementation of the SDGs began in 2015 along with more than 193 other UN member countries, that Indonesia is one of the United Nations member countries that plays an active role in determining the targets of the Sustainable Development Goals as stated in the document Transforming Our World: The 2030 Agenda for Sustainable Development. And one of the points is related to responsible consumption and production (SDGs 12). And for the first time the government issued a regulation in the form of Presidential Regulation No. 59 of 2017 concerning the Implementation of the Achievement of the Sustainable Development Goals.

Then in 2022, this regulation was refined with the issuance of Presidential Regulation No. 111 of 2022. This Presidential Regulation regulates the determination of the national Sustainable Development Goals (SDGs) targets for 2024, which are compiled with reference to the global goals and targets of the SDGs for 2030 and the national targets of the 2020-2024 national development plan. In order to achieve the national SDG targets for 2024, a national coordination team was formed consisting of: a national steering committee, a national implementation team, a national working group, and a team of experts. The national steering committee is led directly by the President as head of state and government, and grants hierarchical authority to the relevant Ministers. Both regulations regulate the preparation of the National Action Plan (RAN) and Regional Action Plan (RAD) related to the implementation of the SDGs. The government also regularly reports on the progress of SDG achievement. through the

Voluntary National Review (VNR) to the United Nations (UN), as well as establishing SDGs Centers in 65 universities to support research and education related to the issue.

Indonesia's commitment to the SDGs is not only in the form of regulations, but also This is realized through various strategic programs and policies. Indonesia's achievements in the SDGs show significant progress, with its ranking jumping from 102nd in 2019 to 75th in 2023. The central government has issued numerous policies to achieve sustainable development goals, including strategies supported by the "Three Economic Engines":

- a) Revitalization economy conventional through development infrastructure Andhuman resource development.
- b) Development of new economic engines such as industrial downstreaming, digitalization, and energy transition.
- c) Strengthening the Pancasila economy, which focuses on social protection and economic inclusion through programs such as the Family Hope Program (PKH) and People's Business Credit (KUR).

In general, the SDGs program in Indonesia consists of 17 Goals, each. The Goals have a specific focus, such as ending poverty, hunger, ensuring quality education, and combating climate change, which are outlined in. In 169 Targets, these broad goals are then broken down into more measurable and specific outcomes. To monitor the achievement of each target, the Indonesian government uses 241 indicators tailored to the national context. This detailed indicator makes it easy to monitor the level of achievement. However, by 2025, Indonesia will have implemented the program for 10 years, and the level of achievement will be optimal. The implementation of the SDGs is coordinated by the Ministry of National Development Planning/Bappenas. A report released by Bappenas, delivered by the Deputy Head of the National Development Planning Agency (Bappenas), Febrian Alphyanto Ruddyard, stated that by 2024, Indonesia had met 61.4% of the SDG indicators. However, despite showing progress in achieving the SDGs, globally, only about 35 percent of the SDG targets are on track or have made sufficient progress. A key point in the SDGs is that human rights-based development is directed to facilitate both the present and future generations. The concept of development is to reduce waste from inefficient development results, so the SDGs encourage ways of achieving this with several values, namely equality, inclusiveness and participation with an integrated development strategy played by various parties.

Based on the report, the achievement of 17 SDGs goals in Indonesia shows progress. Unequal progress has been made on some goals, while others still face significant challenges, particularly at the regional (district/city) level, including SDG Goal 12, Responsible Consumption and Production. This achievement can be seen in the Bappenas report.

Table 2. Levels of Achievement and Main Focus of SDGs

| SDGs goals | Achievement Level and Main Focus |
|--------------------------------|--|
| SDG 1 - No Poverty | Significant progress in reducing income poverty in the Asia-Pacific region. |
| SDG 2 - Zero Hunger | Reduction in the prevalence of malnutrition. |
| SDG 3 - Healthy and Well-Being | Significant progress, driven by improvements in maternal, infant and child health. |
| SDG 4 - Quality Education | Progress is very slow regionally. |

| | |
|--|--|
| SDG 5 - Gender Equality | Reviewed in 2025, focus on the economic empowerment of women and people with disabilities. |
| SDG 6 - Clean Water and Adequate Sanitation | - |
| SDG 7 - Affordable and Clean Energy | - |
| SDG 8 - Decent Work and Economic Growth | Progress is very slow regionally and lags behind other regions. |
| SDG 9 - Industry, Innovation and Infrastructure | Significant progress, driven by cellular network access and industrialization. |
| SDG 10 - Reduced Inequality | - |
| SDG 11 - Sustainable Cities and Communities | - |
| SDG 12 - Responsible Consumption and Production | Progress is very slow regionally. |
| SDG 13 - Addressing Climate Change | Experiencing regional decline, triggered by disaster vulnerability and emissions. |
| SDG 14 - Marine Ecosystems | Progress lags behind other regions. |
| SDG 15 - Life on Land | Progress in slowing land degradation. |
| SDG 16 - Peace, Justice and Resilient Institutions | Progress in reducing victims of human trafficking and murder. |
| SDG 17 - Partnerships to Achieve the Goals | Progress lags behind other regions. |

Based on the data above, the government has compiled targets and indicators for SDGs 12, there are at least 7 priority programs that must be realized by 2030, meaning there is still time left in the next five years, as stated by Bappenas, namely:

- a. Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, with all countries taking action, led by developed countries, taking into account the development and capacities of developing countries.
- b. By 2030, achieve sustainable management and efficient use of natural resources.
- c. By 2030, halve global per capita food waste at the retail and consumer levels and reduce food losses throughout the production and supply chain, including post-harvest losses.
- d. By 2020, achieve environmentally sound management of chemicals and all types of waste throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce the pollution of chemicals and waste to air, water and land to minimize adverse impacts on human health and the environment.

- e. By 2030, substantially reduce waste production through prevention, reduction, recycling and reuse.
- f. Encourage companies, especially large and transnational corporations, to adopt sustainable practices and integrate sustainability information into their reporting cycles. Promote sustainable public procurement practices, in line with national policies and priorities.
- g. By 2030, ensure that people everywhere have relevant information and awareness about sustainable development and lifestyles in harmony with nature.

Then the specific targets of SDGs-12 in Indonesia include five points, namely:

- a. Achieving sustainable and efficient management of natural resources.
- b. Halve global food waste per capita at the retail and consumer levels.
- c. Reducing waste through prevention, reduction, recycling and reuse.
- d. Encourage companies to adopt sustainable practices and report their environmental impact.
- e. Ensuring that the community has information and awareness about sustainable development and lifestyles in harmony with nature.

In fact, long before the issue of sustainable development, specifically SDGs 12, which was initiated by countries that are members of the UN, in 2008 the government had issued a regulation in the form of Law Number 18 of 2008 concerning Waste Management. This regulation became the legal basis for waste management in Indonesia, including household waste and similar waste (such as commercial waste, small industries, and public facilities). In essence, this regulation regulates:

- a. Government duties and authorities in waste management.
- b. Community rights and obligations in reducing and managing waste.
- c. Prohibition of littering and obligation to sort waste.
- d. Development of an integrated waste management system

Then, in general, Law Number 32 of 2009 concerning Environmental Protection and Management was born. In its considerations section, it clearly states that national economic development as mandated by the 1945 Constitution of the Republic of Indonesia is carried out based on the principles of sustainable and environmentally conscious development. This is a form of Indonesia's awareness of global changes as a result of development and global warming which have an impact on the quality of the environment which is increasingly declining and has threatened the continuity of human life and other living creatures so that it is necessary to carry out serious and consistent environmental protection and management by all stakeholders.

Then, in an effort to manage B3 waste, Government Regulation No. 101 of 2014 concerning the Management of B3 Waste (Hazardous and Toxic Materials) was issued. Although its focus is on B3 waste, some consumer waste, such as used batteries and electronic waste, falls into this category. It regulates hazardous waste management, including storage, processing, and final disposal.

Furthermore, a policy was issued in the form of Presidential Regulation (Perpres) No. 97 of 2017 concerning National Policy and Strategy for Household Waste Management and Household-Similar Waste (Jakstranas) has set a target of 30% waste reduction and 70% waste management by 2025. However, based on SIPSN 2024 data, waste management has only reached 47.1%, with 52.9% still unmanaged. Most recently, Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management was issued. This is the implementing regulation of Law Number 32 of 2009 concerning Environmental Protection and Management.

Based on observations in a study conducted by researchers on the achievement of SDG 12, according to data released by Bappenas in 2024, the level of achievement is uneven across regions, particularly in Central Lombok Regency. While the national level of SDG 12 achievement is quite high, this contrasts with support from local governments, which prioritize other sectors of the 17 SDGs.

The low achievement of SDG 12 has a direct impact on other SDGs. Studies show a strong association or link between SDG 12 indicators and indicators within Indonesia's four main pillars of the SDGs (social, economic, environmental, and legal and governance). Resource efficiency and waste

reduction will support goals such as food security (SDG 2), sustainable economic growth (SDG 8), and the preservation of marine and terrestrial ecosystems (SDGs 14 & 15).

This is why the central government encourages the active participation of provincial and district/city governments to create policies supported by regulations that bind all parties in the region, the participation of the community, business actors, and communities concerned with the environment. As a derivative of the policies and regulations issued by the government in achieving SDGs 12, the NTB Provincial Regulation No. 5 of 2019 concerning Waste Management was issued. This regulation was born from one of the provincial government's concerns that waste management has not been in accordance with environmentally sound waste management methods and techniques, resulting in negative impacts on public health and the environment and not supporting sustainable regional development. Waste Management is intended to increase waste reduction and handling activities through systematic, comprehensive, and sustainable activities.

The provincial government has launched the NTB Waste Free Program, with a target of 70% managed waste being managed by 2023, with claims of being faster than the national target of 2025, however, the achievement by 2025 is approaching 40%, with the support of 372 waste banks in NTB. With the TPB launched by the UN, it is hoped that it will encourage all Regional Governments, especially West Nusa Tenggara to be involved and make it a success. The strategic steps implemented by the NTB Provincial Government to ensure the implementation of the TPB/SDGs into regional development planning documents as mandated in Article 15 paragraph (1) of Presidential Regulation number 59 of 2017 and has been revised to Presidential Regulation Number 111 of 2021 concerning the implementation of sustainable development goals. The substance of the content integrated in the document in question includes the targets, targets and indicators of the TPB/SDGs into the 2024-2026 Regional Development Plan (RPD) document. To ensure the realization of the achievement of the TPB/SDGs objectives, it is hoped that the role of each related stakeholder according to their duties and authorities will optimize the implementation of their strategic activities by using analytical instruments and measurable data according to academic standards.

Several focuses in the sustainable development agenda that are aligned with the 2024-2026 Regional Development Plan include: human development such as poverty, hunger and malnutrition, health development, education and gender equality, and efforts to reduce disparities between income groups and between regions. In addition, aligned focuses also include fulfilling community access to water and sanitation, access to energy, maintained and inclusive economic growth, sustainable industrialization, sustainable settlement and urban development that is generally accompanied by the implementation of sustainable production and consumption patterns, environmental development with a focus on climate change adaptation and mitigation, natural resource conservation and ecosystem and biodiversity protection. At the level of the NTB Provincial government, there are two targets that must be achieved from SDGs 12, from several indicators set by the government nationally, including:

- a. Indicator (12.a), supports developing countries to strengthen their scientific and technological capacities to move towards more sustainable consumption and production patterns.
- b. Indicator (12.5) that by 2030, substantially reduce waste production through prevention, reduction, recycling and reuse;

In general, the achievement indicators above have experienced a significant increase compared to the previous year, 2023 to 2024, as illustrated in the table below.

Table 3. SDGs Indicator Targets

| Code | Indicator Target | 2023 | 2024 |
|------------|---|-------|-------|
| 12.a.1 | Renewable energy generation capacity installed | 41.82 | 67.31 |
| 12.5.1.(a) | Percentage of waste generated that is recycled repeat | 15.65 | 64 |

Source: DLH, and DESAM, Central Lombok Regency.

To measure the effectiveness of the implementation of SDGs 12 in Central Lombok Regency, researchers used simple indicators to measure the achievement of SDGs, especially Goal 12, namely:

- a. There are regional regulations and/or special regulations regarding waste management in Central Lombok district.
- b. Provision of supporting infrastructure in handling and managing waste
- c. Provision of funds allocated through the APBN, APBD to support waste management and have an impact on improving the community's economy.
- d. Consistency of the government (apparatus) in enforcing the law (imposing sanctions, fines for those who dispose of waste carelessly).

The form of responsibility of the Central Lombok Regency regional government in 2015 has issued the Central Lombok Regency Regional Regulation Number 5 of 2015 which was last amended by the Central Lombok Regency Regional Regulation No. 2 of 2024 concerning Waste Management, with updates in the Articles on waste reduction and handling (for example sorting, TPS/TPA) and the addition of 12 new articles (Articles 27A–27L) and strengthening sanctions for violations of this regional regulation.

Previously, the Regent of Central Lombok issued Regent Regulation No. 35 of 2018 as an implementation of Regional Regulation No. 5 of 2015, but it has not been implemented optimally because in substance there are provisions that are not in line with the conditions of community development in waste management.

A key point in the Central Lombok Regency Regional Regulation No. 2 of 2024 concerning Waste Management is to strengthen the authority of the Central Lombok Regency government in managing sustainable consumption and production waste. Some of the main authorities stipulated in Article 7 include:

- a. Establish waste management policies and strategies based on national and provincial policies,
- b. Organizing Regency scale Management according to standards, procedures and determined by the Government, with normative criteria,
- c. Supporting the role of Village Government in Waste Management,
- d. Carrying out the performance of waste management and supervision carried out by other parties,
- e. Determining the location of TPS, TPS 3R, FPSA, TPST, and/or TPA Waste,
- f. Coordinating the location of the Waste Banks formed by the community, by the Government and
- g. Conduct periodic monitoring and evaluation every 6 (six) months for 20 | (twenty) years on landfills with open disposal systems that have been closed,
- h. Facilitating disputes and resolving Waste Management, and
- i. Develop and implement an emergency response system for waste management in accordance with its authority.

In general, this authority still faces many obstacles due to various factors in the field. From the results of the researcher's observations, the form of waste management has become a complaint from the community, which has brought a good image of Central Lombok as a tourist destination.

Based on the views of Mr. Y, as one of the activists in waste management, especially waste from consumption and production in Central Lombok, who is concerned with handling waste so that it can be utilized in the agricultural sector, organic fertilizer in the provision of vegetables and fruits to supply the needs of hotels in the Mandalika area.

He believes that the role of local governments has been quite effective, issuing regulations that systematically regulate waste management, including waste categories, funding, and community involvement. However, the weakness lies in the fact that the programs implemented are still incidental and partial, not yet implemented sustainably, from upstream to downstream. Without sufficient funding, the programs implemented through collaboration with various parties, especially the community, will not be implemented. Looking at the implementation of Japan, which I learned about while working in

Japan, the management of consumption and production waste is truly a flagship program of the government. This includes providing temporary storage facilities, separating organic and non-organic waste, bottles, and waste from hazardous and toxic materials. This is a form of education to discipline the community, and downstream, the government can then process the waste into recyclable materials.

Mr. Sawaludin, an activist at the Bintang Sejahtera waste bank in Tanak Awu Village, Pujut District, Central Lombok Regency, also acknowledged this. He explained the waste management chain in Central Lombok and stated that the weaknesses regarding waste ended after they implemented the 4-in-1 strategy. The server-in-1 strategy includes:

Join one government with its regulations, and there is a community with active participation in sorting waste, then there is the industry/manufacturer referred to here, if we know here the name is Ilagi UP, here they issue environmental costs per item they produce, in the world it is said to be an efficient and effective waste management system with the highest overall recycling rate, if in Europe the deposit scan, the combined packaging return is around 90% almost 100% from the community, the fourth in Taiwan there is a function like ours, the collectors of the recyclers are supported, there they are given support per kilogram given 0.5 dollars.

He further emphasized that Indonesia, including Central Lombok in particular, does not implement this. In Indonesia, there are multiple taxes per kilogram, namely purchase tax and sales tax. If we can collect and process waste, we should receive an incentive of at least 9,000 rupiah per kilogram. That's why our team is studying this further. Our hope or dream is to see how such an ecosystem can be created. Perhaps we can work together to propose to the local government.

The high percentage of unmanaged waste is a significant and growing problem, with daily waste volumes continuing to increase, due to the government's increased focus on handling activities, particularly final processing. Based on the waste management terminology in Law Number 18 of 2008 concerning Waste Management, handling begins with sorting, containerization, transfer/collection, transportation, processing, and final processing. Data on waste volume levels in Central Lombok Regency, reported by the Environmental Service in 2025.

Table 4. Waste Volume Level Data in Central Lombok Regency

| Period | Amount of waste volume | Information |
|---|-------------------------------|---|
| Daily Waste Volume Level | Around 80 tons/day | Volume during Ramadan and normal days |
| Waste volume level for Eid al-Fitr holiday 2025 | 90 tons/day (total ~600 tons) | There was an increase due to holiday activities and community traditions. |
| Maximum estimate | Estimated 500 tons/day | Calculated based on data and population (0.5 kg/person/day) |
| 2025 Mandalika MotoGP | 50 tons (over 4 days) | Trash collected from the MotoGP international event venue |

Waste management policies encompass various efforts to reduce, utilize, and process waste, with the goal of creating a clean and sustainable environment. Key policies include waste reduction at source, the implementation of environmentally friendly offices, the revitalization of mutual cooperation (gotong royong), school-based waste management, and the conversion of waste into renewable energy. The Central Lombok Regency government's commitment and policies regarding waste management focus on:

- a. Clean and Comfortable Destinations in the Mandalika area. The government is committed to maintaining the cleanliness and comfort of tourist destinations through effective waste management.
- b. NTB Circular Economy strives to realize a circular economy through waste management, minimizing resource waste, and increasing the economic value of waste.
- c. Waste to Energy (WtE) Processing waste into renewable energy is the main focus, by utilizing waste as co-firing fuel.
- d. Regional Regulation Regional Regulation (Perda) No. 2 of 2024 regulates waste management, including policies, strategies, and authority in waste management.
- e. Sustainable waste management, including compaction, composting, recycling, and processing waste into energy at landfills.

The local government has also prepared infrastructure for managing consumption and production waste in the form of preparing facilities and infrastructure used to support human resource activities, as conveyed by the Central Lombok Regency Environmental Service, including:

Table 5. Facilities and Infrastructure of the Environmental Service

| No | Type of facility | Amount |
|----|------------------|------------|
| 1 | Garbage truck | 11 units |
| 2 | Arm Roll | 8 units |
| 3 | Regular truck | 2 units |
| 4 | Pick up | 4 units |
| 5 | Heavy equipment | 4 units |
| 6 | Tricycle | 14 units |
| 7 | Trash container | 22 units |
| 8 | landfill | 1 Location |
| 9 | PDU | 1 Location |

Provision of waste processing facilities and infrastructure in Central Lombok Regency is one form of government support, in addition to other forms, namely how organic waste can be managed to produce fertilizer that can be used by organic farmers, as explained by Mr. Jaliluddin, Head of Agriculture, that the local government has prepared sufficient human resources. Then each village is assigned a minimum of one PPL companion, the main activity is to carry out agricultural extension, directly under the supervision of the UPT Department of Agriculture. Then in the implementation of supervision, monitoring and even audits are carried out by the BAPEDA team of Central Lombok Regency. Some forms of implementation by utilizing livestock manure, namely the practice of making fertilizer / compost from cow dung, which is modified, between agricultural waste such as straw and cow dung. In several places it has been implemented, and is still running such as UPPO: for organic fertilizer managers by providing a package of equipment, such as a compost house.

The Central Lombok Regency government allocates an annual budget for waste management. In 2024, the Environmental Agency allocated Rp 139,583,500, a program that is still minimal considering the vast area encompassed by sub-districts, villages, and cities.

Community Participation in Sustainable Consumption and Production Waste Management in Central Lombok Regency

Research and reports from the results of research that has been carried out previously related to waste management involving several main parties with complementary roles: government, community, and groups

Communities are key actors, while the private sector can also contribute through social responsibility programs. It's important to emphasize that community participation is key to sustainable waste management. This involvement can range from simple actions at home to participation in communal waste management programs.

The Central Lombok Regency Environmental Agency (DEN) continues to emphasize the importance of community involvement in waste management, particularly through regular outreach activities, reaching out to communities in villages. These outreach activities are expected to encourage communities, along with UPS, to manage waste by sorting household waste into organic and inorganic types, with the remaining waste eventually being disposed of at the landfill.

The key is in sorting, if the community can sort properly and correctly by paying attention to the 3R principle (Reduce, Reuse & Recycle) it is certain that waste in the community environment and tourist destinations will be reduced.

Level of community participation in the waste bank program

Limited public participation: A policy analysis study revealed that public participation in waste management in Central Lombok remains limited to implementation, or tokenism. This means that the community may be involved in operational activities but does not yet have a significant role in planning or decision-making.

The success of waste management depends heavily on strong collaboration between all stakeholders. The government cannot work alone, and active participation from the grassroots is essential. This was emphasized by a Waste Bank activist, who said that we collect waste from its source through a household approach through the movement of waste banks or sorting houses, and so on. In addition to waste banks, we now have the Secular Village Movement (GADIS). There are several pilot projects being tried to follow up on this step, how to then invite the community, one family at a time, to play a role in waste management, starting from waste sorting, at least reducing it. Maybe we won't solve waste completely, but reducing the volume of waste is an extraordinary achievement. In my neighborhood, 70% of waste can be reprocessed by the recycling industry through sorting. If we want to be more serious, 100% of waste will not go to the landfill. The traditional approach in Indonesia is adapted from what we have learned from overseas, namely awareness to get closer to the community. Household waste is brought to our place and sorted, then sent to the recycling industry that needs it. However, in practice, I see that there are approximately 16 sub-districts in Central Lombok, which on average all dump their waste into the river, because the government does not have enough budget to build a fleet. Our largest landfills are in Ampenan and Kute, and our best transportation in Mataram city to dispose of waste is the gutter.

This program requires government support and participation from all parties, especially the community who have concern and awareness starting from the smallest things, namely not throwing garbage in drains, gutters, rivers and other public places, especially if possible the community has the concern to sort and separate the types of consumption and production waste from their respective households.

According to Sawaludin, the manager of the Bintang Sejahtera waste bank, he said: "The traditional approach in Indonesia, especially in Central Lombok, in waste management is adapted from what we have seen from outside to bring it closer to the community. Household waste is brought to our place and sorted, then sent to the recycling industry that needs it. Then, from this kind of activity practice, there are three data obtained as standards in determining, namely:

- 1) The level of public awareness.

We can accurately determine this through our customers' savings books. We once had 12,000 households. We paid 2.7 billion rupiah annually to our customers through our network of waste banks. We deposited between 10 million and 50 million rupiah to the vendors. This was less than a month; in just two weeks, many sacks were already filled with trash.

2) Obtaining the calculation data of people who are aware

If they have become a customer of the waste bank, it means they are educated, from there 1 customer 1 family, at least 1 family has 2 or 3 people, just multiply 12,000 (households at that time) x 3 (people) that's how many people are aware, and thank God the Bintang Sejahtera waste bank can educate. The volume of waste from the movement we can see how much volume of waste we have collected until we have calculated the QHD, how much gas emissions we have reduced, how much plastic waste we have prevented from flowing into the sea. It can also be seen from the waste bank that we manage.

3) Income Generation (Economic Income)

Existing regulations, such as Government Regulation on the Environment and Forestry (PP LHK) No. 14 of 2021, refer to awareness of behavioral change. Furthermore, it explains the secular function of the economy, allowing us to assess its economic value. Previously, we had an association; each of our 10 districts now has a presence in seven districts in West Nusa Tenggara.

Based on the research results, the role of each party in managing the chain from upstream to downstream to ensure there are no blockages in the sustainability process is very important. Without such collaboration, the work that has been carried out will not progress. Therefore, the role of each party, whether from the government, the community, self-help groups, and the private sector becomes clear. As can be illustrated in the following table:

Table 6. Role and Forms of Sector Involvement

| No | Parties Involved | Roles and Forms of Involvement |
|----|---|---|
| 1 | Government | Establishing regional regulations and policies. Organizing outreach, training, and developing waste management systems. |
| 2 | Society and Household | Actively participate by sorting organic and inorganic waste. Manage waste using the 3R principle (Reduce, Reuse, Recycle) and save at a waste bank. |
| 3 | Group Community Self-Help And Garbage Bank | Pioneering community-based waste management. Encouraging waste reduction at source and increasing the economic value of recycling. |
| 4 | Private Sector/Corporate | Contribute through Corporate Social Responsibility (CSR) programs to support waste management. |

The implementation of SDGs-12 through CSR programs can be carried out through community development. Community development is an approach that focuses on community participation and empowerment. From the results in the field, the important role of the private sector or companies such as hotels or banks is where one of the CSR programs that can move by developing the role of the community in realizing SDGs-12, for example the organic and non-organic waste management program implemented by the Patuh Bersama Farmers Group, Montong Tekot Hamlet, Sukadana Village, Pujut District. This program was implemented in collaboration with: Mataram University and ITDC (Indonesia Tourism Development Corporation) in Mandalika. The form of activities carried out by implementing a Smart-Integrated Farming System with IoT-based irrigation (smart drip irrigation). Using compost from cow dung and biochar to improve the fertility of Vertisol soil which was initially less fertile, then the results of this activity can produce organic vegetables (tomatoes, chilies, bitter melon) and local fruits that are marketed to restaurants in the Mandalika area. Then, a community activity was carried out by the Women Farmers Group (KWT) of Kampung Hijrah, located in Ngolang Hamlet, Mandalika Area. They attempted to create a business by processing organic agricultural products into value-added products, such as banana and bitter melon chips, chili bon, papaya jam, and ginger and turmeric powder drinks. This activity was supported by universities and guided by lecturers from the

University of Mataram regarding food quality and safety standards suitable for consumption by the public as consumers.

The waste management program is closely linked to the "Responsible Production and Consumption" goal in accordance with SDG-12. The main target of achieving this SDG is to reduce the amount of waste produced by the community and improve waste processing, thus achieving zero waste. Effective and efficient waste processing can reduce the amount of waste produced and reduce the negative impacts of waste on the environment and human health. Furthermore, waste processing can also support the recovery and reuse of resources, thereby helping to reduce irresponsible consumption of natural resources. There are two types of waste: organic and inorganic waste.

According to Yusuf, a waste processing practitioner, that community consumption waste is very good to be processed into organic fertilizer to make agricultural soil fertile, and have healthy agricultural production results and are very safe for humans, because if we look at the current healthy planting patterns carried out by our farmers, it is very dependent on the type of non-organic fertilizer that contains chemicals, even in maintenance using chemicals, such as pesticides, so it is likened to what the community consumes is the waste itself, which contains chemicals that are unconsciously consumed every day. types of non-organic fertilizer that contains chemicals, even in maintenance using chemicals, such as pesticides, so it is likened to what the community consumes is the waste itself, which contains chemicals that are unconsciously consumed every day.

Therefore, in increasing public participation, the statement by the Chairman of Bank Sampah Mandiri is very relevant: "Building awareness, changing behavior, and carrying out this secular economic function is what we are optimistically trying to do. Building an ecosystem with more active waste selection in households, now how to restore my regulations. 12,000 waste bank customers, and we will reactivate or recall them and progress. Judging from the concept, the method or development program must be built from awareness, involving the front-line government, such as hamlet heads (kadus) and village heads (kades). Once this is complete, we can invite industry. Now talking about e-commerce, developing applications. We used to have an app called SAMPUN (salam satu negeri). We provide a Bintang Sejahtera Webbus barcode, so people only need to buy trash bags and don't have to pay for transportation. The bags are placed in the provided place, and we are required to collect them. Our data tracking is clear regarding the number of residents and how much waste is collected.

Regarding the role of the government related to the ecosystem in waste management in Central Lombok Regency at this time, if we give an assessment with an interval of 1 to 10, the informant said: "I can say that what the government has done is certainly not optimal, the maximum value is 3 (three) from the government's role that has been implemented, whatever the policy is if the cultural ecosystem of the finance model, the massive strategic role of the holder is not technically stated, I say no."

Socialization activities for processing waste with economic value in Central Lombok Regency

The Central Lombok Environmental Agency (DLH) has conducted various waste management outreach activities, focusing primarily on community education, practical training, and collaboration with villages and local groups. The key messages consistently emphasize the importance of sorting waste into organic and non-organic categories and implementing the 3R principle (Reduce, Reuse, Recycle).

In addition to one-time outreach, the Central Lombok DLH runs a continuing education program and has a structured plan for 2025, with activity formats including:

- 1) Training and Extension: This activity provides environmental education, training, and extension regularly for the community and government staff to improve knowledge and skills in sustainable environmental management.
- 2) Collaborative Climate Village Program: Conducting outreach for the "Climate Village" program to increase community participation in climate change adaptation and mitigation at the local level.
- 3) Work Plan for 2025: includes educational seminars, training, and environmental campaigns for the community and industrial sector, as well as the formation of environmental care groups in each village to encourage active participation.

Based on a report from the Central Lombok Environmental Service, in summary, several socialization activities have been carried out in the last 5 years since the start of the issue of how the SDGs program is primarily related to SDGs 12 which focuses on waste management as one form of realizing sustainable development, from the responsible consumption and production activity sectors, including.

Table 7. SDGs Supporting Socialization Activities

| No | Form of Activity | Targets and Place | Time |
|----|--|---|------|
| 1 | Socialization of the MPROPER program and guidance on environmental management appropriate. | Company and Industry | 2025 |
| 2 | Socialization of Standard Operating Procedures (SOP), waste sorting, 3R principles, collaboration between the community and the Unit Waste Processing (UPS). | Destination beach tourism Selo ng Belanak | 2022 |
| 3 | Education on proper waste management to raise awareness environment. | High school students | 2024 |
| 4 | Environmental education and campaign programs in schools and community. | Public | 2024 |
| 5 | Joint cleaning activities (gotong royong) and joint training in the context of commemorating National Waste Awareness Day 2025. | All Regional Device Organizations (OPD) and society | 2025 |

In addition to the above activities according to the Environmental Service, there are still many activity programs carried out in villages, as well as activities carried out by community groups, private universities and stakeholders who care about waste management. For example, those carried out by the Lelong Village Government, Praya Tengah District, together with the Central Lombok Regency Environmental Service, held a waste management socialization. The socialization activity was in Batujai Village, Praya Barat District, Central Lombok Regency. By KKN PMD Unram, presenting speakers in this activity were Mr. Andep Saputra, ST, who represented the NTB Environment and Forestry Service and Mrs. Masiani who is an environmental practitioner and founder of the Alhaqiqi Central Lombok Waste Bank. And KKN Ummat held a socialization of the appropriate technology (TTG) work program for processing waste into paving blocks in Lembah Sari Village on September 8, 2025. This activity aims to educate the community about utilizing waste into useful and environmentally friendly products.

CONCLUSION

The effectiveness of SDG 12 (Responsible Consumption and Production) in driving economic development in Central Lombok depends on the interaction of various enabling and inhibiting factors. This success is driven by the government's commitment to aligning policies and channeling funds, increasing public awareness of the environment, circular economy initiatives such as waste banks, and the potential for sustainable tourism in the Mandalika Special Economic Zone.

The development of environmentally friendly business strategies in Central Lombok has shown significant progress through various concrete innovations aligned with the principles of SDGs-12. Efforts such as the Black Soldier Fly (BSF) program for processing organic waste, the establishment of waste banks and ecobrick production, and the development of sustainable tourism villages (eco-villages) have not only succeeded in reducing negative impacts on the environment but also brought economic benefits to local residents. Several important steps such as mapping the local situation, designing circular business models, strengthening cooperation between parties, and increasing access to green financing are key factors driving the transition to an inclusive and competitive green economy. With strong regional policy support, such as the "NTB Zero Waste" program and the integration of sustainability principles into the Regional Medium-Term Development Plan (RPJMD), Central Lombok has the potential to become a national example in implementing SDGs-12. Collaboration between the government, business actors (especially MSMEs), communities, and the private sector has proven that challenges in waste management can be transformed into sustainable business opportunities. These results not only strengthen the resilience of the local economy but also emphasize Central Lombok's role as a model region committed to realizing balanced development between economic, social, and environmental aspects.

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