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Creating Green Circular Economy in Waste Management: The Kampung Hijau Bank Sampah Al-Haqiqi Case

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Abstract. The concept of the circular green economy strives to address the issue of waste generated by society, aiming to prevent it from becoming a more complex environmental problem. This study aimed to comprehensively analyze the efforts of PT Pertamina Patra Niaga DPPU Bandara Internasional Lombok through the CSR program "Kampung Hijau Bank Sampah Al-Haqiqi" in changing the community's paradigm in waste management. This study employed a qualitative method with a case study approach. The data used in this research included primary data collected through observations and interviews with beneficiaries. Secondary data were gathered from program implementation reports, monitoring and evaluation reports, and supplemented with relevant journal articles. This study reveals that 1) The CSR program of Al-Haqiqi Waste Bank adopts a new paradigm for waste management and assists in changing community habits regarding household waste management 2) Kampung Hijau Bank Sampah Al-Haqiqi program encourages the emergence of the circular economy, leading to not only environmental sustainability but also economic improvement 3) Kampung Hijau Bank Sampah Al-Haqiqi program accelerates the achievement of development goals, particularly focusing on SDG Goal 12 and the reduction of GHG emissions, amounting to 893 kg of CH_4 and 17,860 kg of CO_2.

Keywords: *Green Economy Circular, CSR, Waste Management, Kampung Hijau Bank Sampah Al-Haqiqi program.*

A. INTRODUCTION

The current environmental degradation is occurring at an alarming pace, driven by the climate crisis, necessitating transformations across all sectors, one of which is waste management. Changes in consumption patterns and the socio-economic conditions of communities are among the primary factors contributing to the increase in the volume, types, and characteristics of generated waste (Mulhidin & Sumadiyanto, 2020). This is an undeniable reality, as waste is an inevitable byproduct of human life activities, and its volume continues to grow annually in parallel with the increasing consumerism within society. Furthermore, the mismanagement of waste has the potential to escalate environmental toxicity and pollution, affecting both air and water quality (Kristianto, Siahaan, & Vuspitasari, 2022).

In the past decade, economists worldwide have acknowledged the environment as a critical aspect that demands serious consideration in sustainable development (Purwanti, 2021). In Indonesia, the government has also directed its attention towards inclusive and environmentally conscious development, giving high priority to the natural resource sector (Sutomo, Suharso, Mukhlis, & Ahadiat, 2023), particularly through the implementation of the circular economy approach. One such implementation at the household level is the establishment of waste banks. Through waste banks, communities can play a dual role as producers and consumers by processing and managing their household waste (Purwanti, 2021).

Currently, waste management takes various forms in the handling and treatment of generated waste. These measures are aimed at reorganizing the existing waste generation to ensure sustainable benefits, particularly when employing the concept of circular economy. This concept has been planned by the Indonesian government for full implementation in the year 2024, to create a sustainable waste management ecosystem that contributes to economic advancement across all sectors, including technology/electronics, textile industry, food, retail, and even construction. According to the book titled "The Future is Circular," published by Bappenas, Indonesia is the first country in Southeast Asia to adopt the circular economy concept. As a result, it is expected that Indonesia will pave the way for the strengthening of sustainable resource and energy management. It is estimated that by continuing to practice circular economy principles, Indonesia could reduce CO2 emissions by approximately 11-15% by the year 2030 (Permata, et al., 2022).

In its terminology, a circular economy is a resource utilization system in which processes of reduction, reuse, and recycling occur (Darmastuti, Cahyani, Afrimadona, & Ali, 2020). According to (Ramadani & Imsar, 2023), a circular economy is a design resulting from integrated waste management involving the participation of the community and specific stakeholders. The selection of waste can be done independently and participatively within a community. The concept of a waste bank aligns well with the principles of a circular economy. In another source, Kircherr et al. (Ramadani & Imsar, 2023) explain in their research that a circular economy is an economic system with a product lifecycle approach, primarily focused on reducing, reusing, and repairing materials in the production/distribution and consumption processes. These activities can be carried out at the micro level (individual companies, consumers) and the macro level (cities, regions, countries) to achieve sustainable economics, creating a high-quality living environment, economic well-being, and social justice.

The Minister of National Development Planning/Head of Bappenas, in "The Economic, Social, and Environmental Benefits of a Circular Economy in Indonesia" (Permata, et al., 2022), states that a circular economy represents a closed-loop economic system, maximizing the utility and value of materials, components, and products, thereby reducing the amount of residual waste sent directly to landfills. This concept promotes the management of goods not only based on the principles of reduce, reuse, and recycle (3R) but also on the principles of 9R (refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle, and recover).

As a result, it reduces the issue of waste generation and transforms it into a useful commodity for the environment. However, this effort presents a challenge because public knowledge about waste management is still limited. The majority of the population is still inclined to dispose of waste in landfills without prior processing. Yet, if properly managed, waste can generate economic benefits, as emphasized by Susilo, Rikardo, and Suryanto (Darmastuti, Cahyani, Afrimadona, & Ali, 2020). They state that the utilization of waste is highly beneficial for improving the local economy, as processed waste can be turned into marketable commodities. Waste, which initially lacks value and poses an environmental problem, can, when processed, bring about value and become a source of environmental problem-solving, such as through the production of fertilizer.

According to data collected from the National Waste Management Information System of the Ministry of Environment and Forestry (SIPSN KLHK), in the year 2022, the national waste generation reached 33,297,912.43 tons per year. Specifically, in Central Lombok Regency alone, it amounted to 153,263.50 tons per year, or if translated to a daily rate, approximately 419.90 tons per day (KLHK, 2023). Such a substantial quantity, if not properly managed, poses an ongoing environmental challenge. Therefore, the circular economy system in waste management is expected to serve as an alternative for mitigating environmental

damage by eliminating carbon footprints in the form of waste disposal (Kristianto, Siahaan, & Vuspitasari, 2022). The circular economy system also provides a sustainable solution to the global climate crisis currently unfolding worldwide.

It is this complexity of environmental issues that PT Pertamina Patra Niaga DPPU Lombok International Airport is attempting to address through the CSR program "Kampung Hijau Bank Sampah Al-Haqiqi" in Reak 1 Hamlet, Tanak Awu Village, West Praya Subdistrict. The waste problem in Central Lombok City, in particular, continues to escalate, even on a national scale. Waste management is governed by Article 12 of Law Number 23 of 2014 concerning Regional Governments, which mandates that environmental matters, including waste, are part of the obligatory basic services, especially waste management. Waste management at the regional level is the responsibility of district/city governments and should be in accordance with established norms, standards, procedures, and criteria.

The residents of Tanak Awu Village manage household waste in various ways, such as dumping, burning, disposing of it in designated waste bins, self-disposal, separating organic and inorganic waste for delivery to the Waste Bank, and even dumping it into rivers. Fundamentally, Tanak Awu Village has Waste Banks or waste management facilities in several hamlets, but the majority of the population still chooses to burn their household waste. This demonstrates that the awareness of Tanak Awu Village residents regarding the management of household waste remains low.

In light of this, within the vicinity of the company, PT Pertamina Patra Niaga DPPU BIL is actively promoting the establishment of a green village initiative, commencing with proper and effective waste management by the community, in collaboration with the company. Furthermore, this research aims to identify waste management issues within the "Kampung Hijau Bank Sampah Al-Haqiqi" program, with the intention of not only impacting environmental sustainability but also economic enhancement. The inquiries posed in this study are addressed by associating the activities within the "Kampung Hijau Bank Sampah Al-Haqiqi" program with the concept of a green circular economy.

B. METHODS

This study employed a qualitative methodology, emphasizing processes and meanings within this qualitative research type. Theoretical foundations guided the research to focus on facts in the field. In this qualitative study, an interpretive or phenomenological paradigm from the social science tradition was employed. Ontologically, the qualitative paradigm posits that social, cultural, and human behavioral phenomena are not adequately understood solely by what is observable; they must also be comprehensively examined within their full contexts (Fadli, 2021). On the other hand, Creswell, in his book titled "Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, Fifth Edition," explains that qualitative research is an approach used to explore and understand the meanings attributed by individuals or groups to social or human problems. The research process involved emerging questions and procedures, data was typically collected in participant settings, data analysis was inductive and moved from specific to general themes, and researchers interpreted the meaning of the data. The final written report in qualitative research typically has a flexible structure (Creswell & Creswell, 2018).

Furthermore, this study employed a case study research design, aiming to provide a detailed description, explanation, and validation of a phenomenon (Ramdhan, 2021), and to develop an in-depth analysis of a single case (Murdiyanto, 2020). By using the case study research type, the researchers explored a system within society that was tied to a program, event, activity, or individual. The researchers investigated a particular phenomenon over a

specific period and activity and collected detailed and in-depth information in accordance with research procedures.

In case study research, information sources were collected to provide a detailed and in-depth overview of an event. The research sources in this study were primary data obtained from observations and interviews with beneficiaries of the "Kampung Hijau Bank Sampah Al-Haqiqi" program, while secondary data were derived from the company's internal data, such as implementation reports and evaluation reports. Data analysis was performed through triangulation, incorporating data from observations, interview results, internal company reports, and relevant literature. The study location for this study was in Reak 1 Hamlet, Tanak Awu Village, West Praya Subdistrict. Data collection took place from July 26 to August 30, 2023.

C. RESULTS AND DISCUSSION

1. New Paradigm Waste Management

Conventional waste management practices (the old paradigm) have proven insufficient in addressing the waste issues within society. The old paradigm of waste management, often referred to as the "collect-transport-dispose" approach to Landfills (TPA), has resulted in the emission of foul odors from decomposing waste, soil contamination, and the seepage of leachate into residential areas, potentially contaminating water sources. This old paradigm views waste as a commodity to be discarded and left behind (Admindlh, 2020).

The waste management paradigm anchored in this end-of-pipe approach is now outdated and should be replaced by a new waste management paradigm. The new waste management paradigm considers waste as a resource with economic value and the potential to be utilized as an energy source, including compost, fertilizer, and industrial raw materials (Jambi, 2021). Proper waste management has the potential to increase per capita income for individuals and regional income by transforming or regenerating waste into economically valuable products (Kristianto, Siahaan, & Vuspitasari, 2022). Furthermore, the vast quantity of waste that can be decomposed represents a significant potential resource for humus, macro and micronutrients, and soil conditioning, particularly household waste. Therefore, besides its benefits when managed efficiently, it can also mitigate environmental problems (Pramuda, et al., 2023).

Various policies have indeed been prepared by the Indonesian government to address waste issues, starting with Law No. 18 of 2008 on Waste Management, which mandates that every individual involved in household waste and similar waste management must reduce and handle waste in an environmentally sustainable manner. This regulation stipulates that the Government and Regional Governments have the responsibility to cultivate and enhance public awareness of waste management, whether through facilitating, developing, or implementing waste reduction and handling measures.

Not limited to a single regulation, in subsequent years, Presidential Regulation No. 97 of 2017 outlined the National Policy and Strategy for Household Waste Management, Ministerial Regulation No. 75 of 2019 on the Roadmap for Waste Reduction by Producers, Presidential Regulation No. 27 of 2020 on Specific Waste Management, and Regional Regulation No. 5 of 2019 as a provincial waste management policy strategy.

However, in reality, policies are merely policies if not implemented effectively. Many people still dispose of, burn, and place waste in random locations, and these practices have become entrenched habits that are challenging to change. There is a need for awareness and behavioral transformation within the community. This issue was recognized by PT Pertamina Patra Niaga DPPU Lombok International Airport through a social mapping study of the community development area surrounding the company, specifically in Reak 1 Hamlet, Tanak

Awu Village. In this hamlet, waste management issues remain prevalent, necessitating encouragement through facilitation and public awareness campaigns on household waste handling.

In 2021, PT Pertamina Patra Niaga DPPU Lombok International Airport collaborated with 25 women from Reak 1 Hamlet, who are members of the Al-Haqiqi waste bank group, to process household waste under the "Kampung Hijau Bank Sampah Al-Haqiqi" program. This program is located in Reak 1 Hamlet, Tanak Awu Village, which is within the first ring of the company's operations. The efforts made by PT Pertamina Patra Niaga DPPU Lombok International Airport represent a transformative paradigm that involves the community in managing their household waste, with the pioneering participants being the women of Reak 1 Hamlet. Below is a summary of activities conducted by PT Pertamina Patra Niaga DPPU Lombok International Airport throughout the years 2021-2023:

Table 1. Activites Kampung Hijau Bank Sampah Al-Haqiqi

Year	Activities
2021	• Construction of the waste bank building • Procurement of supporting equipment: waste shredder machines, arc welder, chairs, weighing scales, shovels, tarpaulins, buckets
2022	• Construction of BSF reactor • Construction of the compost house • Procurement of machine components and equipment • Training in Black Soldier Fly maggot cultivation • Training in organic fertilizer management • Program launching
2023	• Additional maggot cultivation equipment • Tricycle • Land maintenance • Program development • Monitoring and evaluating

Source: Company Internal Documents

To achieve optimal waste management, a paradigm shift from the end-of-pipe approach, which involves disposing of waste directly into landfills, is long overdue and should be transitioned to waste management based on the principles of the 9 Rs (refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle, and recover). Household waste in Dusun Reak 1 and Nonb3 waste generated by PT Pertamina DPPU Bandara Internasional Lombok are collected by the Al-Haqiqi Waste Bank Group. The accumulated organic waste is then subjected to fermentation using the Takakura basket method. According to Ying and Ibrahim (Rosmala, Mirantika, & Rabbani, 2020), the Takakura basket method is an approach to waste management that relies on fermentation to break down waste, preventing unpleasant odors and is suitable for household-scale waste reduction at the source. The compost produced through this process is subsequently transformed into derivative products such as POC and POP, which can be traded. Additionally, the POC and POP are used by the Al-Haqiqi Waste Bank Group to enrich vegetable gardens managed by the group itself.

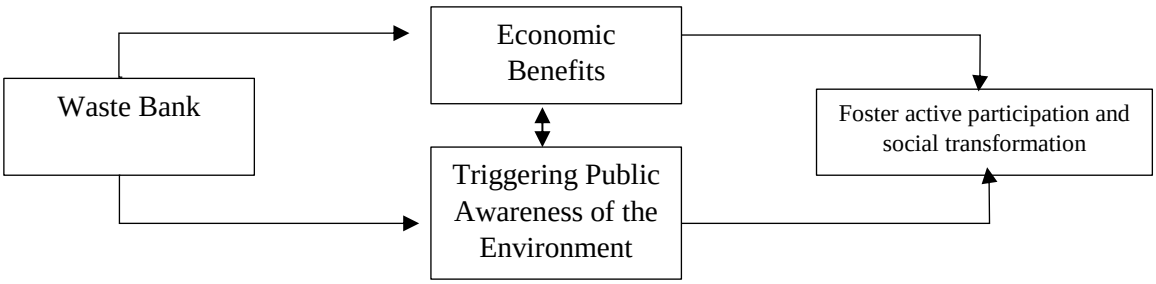

Figure 1. Kampung Hijau Social Engineering Scheme
Source: Proceed by researchers (2023)

The Kampung Hijau Bank Sampah Al-Haqiqi program strives to bring about a shift in public perception, emphasizing that seemingly useless waste can be transformed into valuable resources. The existence of the Kampung Hijau Bank Sampah Program has also garnered the attention of the local government, as evidenced by the issuance of an advisory letter to the community, numbered 470/336/PM-DG, regarding waste sorting and management practices based on the 3R principle. This advisory was formally endorsed by the Head of Tanah Awu Village and was addressed to all residents within the Tanah Awu Village jurisdiction. It specifically mandates that organic waste must be submitted to the Al-Haqiqi Waste Bank for processing into organic fertilizer.

2. Organic Waste Management by Al-Haqiqi Waste Bank as an Implementation of the Circular Green Economy

The world is currently undergoing an ecological crisis (Masruroh & Fardian, 2022). Earth's degradation and extreme weather events are inevitable consequences of humanity's neglect of environmental issues, including the mismanagement of waste. Piles of open-air waste release methane gas (CH_4), one of the gases responsible for global warming. According to data compiled by Sudarman in 2010, every 1 ton of solid waste produces 50 kg of CH_4 gas. This is exacerbated when the waste being piled up predominantly consists of organic matter, leading to anaerobic decomposition and the production of CH_4 gas. In different conditions, burned waste emits CO_2. However, it is unfortunate that the methane gas produced by piled organic waste has the potential to cause damage 20 times greater than the CO_2 gas emitted (Sudarman, 2010).

Hence, the concept of the circular economy stands in contrast to the production economy, which prioritizes linear calculations without considering environmental aspects. Waste management is, of course, not an easy task; rather, it is highly complex due to its technical, economic, and sociopolitical dimensions (Suryani, 2014). It is considered technical because waste management involves five closely interconnected aspects: institutional, production, regulation, community involvement, and operational techniques (Suryani, 2014).

To promote green economic growth aligned with the goals of sustainable development, the implementation of the circular economy can enhance the creation of added value from waste that is recycled. This can have a positive impact on reducing environmental damage and improving the well-being of society (Lakshmi, Devi, & Rani, 2020). This concept is upheld by PT Pertamina DPPU Bandara Internasional Lombok, which is actively contributing to the development of the surrounding communities by initiating the Kampung Hijau Bank Sampah Al-Haqiqi program. This program not only supports environmental sustainability but also has economic implications for the local community.

Kampung Hijau Bank Sampah Al-Haqiqi program aims to establish community-based waste management. This is because the activities are carried out by members of the community

themselves. They make decisions related to their own lives. This approach becomes more effective when tailored to local needs, priorities, and capacities. The 9R waste management approach opens up new perspectives and insights for the community in waste management. Waste is no longer seen as useless; instead, through the 9R approach, waste can be turned into something of value. Therefore, community involvement in recycling activities is crucial, both as producers and as members of the waste-generating community.

Waste will have economic value when it accumulates in sufficient quantities to be traded or further processed as economic goods, either as raw materials (recycling) or as trade commodities. If the community, as waste producers, participates in waste management, such as through the 9R approach, then there is a need for a container to collect and market the waste. This is where the importance of the Waste Bank comes into play as a means for the community to save, gather, and process waste, thereby enhancing socio-economic conditions and empowering the community in waste management.

Table 2. Analysis of the Role of the Al-Haqiqi Waste Bank

No	Aspect	Role of the Al-Haqiqi Waste Bank
1	Institutional Aspect	Mobilize, activate, and direct waste management in Tanah Awu Village
2	Financing Aspect	The funding source consists of CSR funds from PT Pertamina DPPU Lombok International Airport
3	Setting Aspect	Has a legal basis for Government Regulations regarding waste banks and waste management, the Tanah Awu Village Government Appeal Letter
4	Community Participation Aspect	Household waste collection is then managed by members of the waste bank
5	Operational Engineering Aspect	Infrastructure, planning, and operational technical procedures are managed by members of the Al-Haqiqi Waste Bank

Source: Proceed by researchers (2023)

Among all the supportive aspects of a waste bank, from institutional aspects to operational techniques, they form an interconnected system. Subsequently, the implementation of the circular green economy concept in the Kampung Hijau Bank Sampah Al-Haqiqi program goes beyond managing waste in Reak Hamlet. It also involves handling waste generated by companies, such as unused catering waste, which is transformed into product components and becomes an energy source within a continuous cycle from one process to another. Therefore, waste bank managers must be creative, innovative, and entrepreneurial individuals. If waste management is not conducted effectively and in a sanitary manner, it can lead to negative impacts, such as unpleasant odors, discomfort, and disruptions to the cleanliness of the surrounding environment of the waste bank itself. PT Pertamina Patra Niaga DPPU Bandara Internasional Lombok encourages waste bank managers to prioritize environmental hygiene and urges them to become environmental advocates and observers.

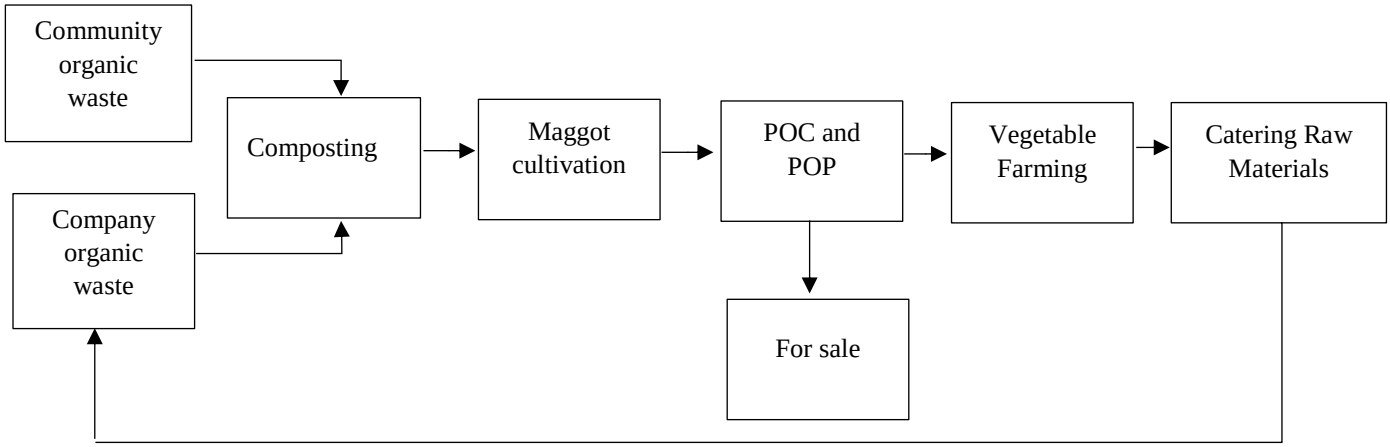

Figure 2. Mechanism of the Kampung Hijau Bank Sampah Al-Haqiqi Program
Source: Proceed by researchers, 2023)

According to Mardikanto and Soebianto (Ningsih & Winarni, 2017), empowerment is an implication of community-based development strategies, commonly known as people-centered development. Furthermore, Noor (Azizah & Ishom, 2020), elaborates that the concept of community empowerment is a facet of development that seeks alternatives to economic growth, not only for meeting the basic needs of the community but also for addressing social, economic, and cultural aspects of daily life. Therefore, the term empowerment invariably refers to efforts aimed at improving the social, economic, and cultural aspects of everyday life within a community. Kampung Hijau Bank Sampah Al-Haqiqi Program creates a cultural shift in waste management in Dusun Reak 1. The chosen program name fosters a discourse of "Green Village," representing the aspiration to make Dusun Reak green. Green, psychologically, is closely associated with nature, lushness, and freshness, and signifies growth, fertility, and even health.

Success in waste and environmental management is fundamentally rooted in the mindset of the community itself. It is crucial to raise awareness among the community regarding waste management actions because not all participants are waste bank managers; active participation involves all members of the community. Therefore, the development of a waste bank is a form of social engineering that teaches the community to sort waste, leading to increased awareness, habituation, and the formation of a cultural norm (Azizah & Ishom, 2020). The community benefits economically and contributes to environmental sustainability. The emergence of economic activities from the waste bank encourages the community to realize that waste can be a new economic resource.

3. The Ecological Impact and Sustainable Development in the Kampung Hijau Bank Sampah Al-Haqiqi Program

In Indonesia, the implementation of activities aimed at achieving the goals of sustainable development has become a reference point in the context of development. According to the report titled "Our Common Future" or the Brundtland Report, published through the World Conference on Environment and Development (WCED) in 1987, sustainable development is defined as a process of development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Setyarini, Subowo, & Teuku, 2020).

Kampung Hijau Bank Sampah Al-Haqiqi program serves as an entry point for achieving sustainable development objectives. The concept of the circular economy, which is promoted in the Kampung Hijau Bank Sampah Al-Haqiqi program, is closely related to

sustainable development because the success of this concept can be achieved when the four pillars of sustainable development—economic growth, social equality, environmental sustainability, and governance—are collectively addressed

In the course of waste management, there are numerous interconnected issues. These include health issues, climate change, poverty reduction, food and resource security, as well as sustainable production and consumption (UNEP, 2015). Pa In terms of health issues, improperly managed waste can affect environmental sanitation, leading to various diseases caused by pathogens and parasites. Particularly in warm and humid weather conditions, these pathogens can be transmitted to humans upon contact, resulting in diseases such as intestinal parasites, diarrhea, and typhoid.

Regarding its connection to climate change, data obtained from the Ministry of Environment and Forestry indicate that the waste sector, especially waste, significantly contributes to greenhouse gas emissions in the form of methane (CH_4) and carbon dioxide (CO_2). In light of this, the Paris Agreement mandates the implementation of Nationally Determined Contributions (NDCs), which include plans for climate change mitigation and adaptation in each member country, including Indonesia. One manifestation of the implementation of this agreement is waste management through composting facilitation. In 2022, the Kampung Hijau Bank Sampah Al-Haqiqi program successfully reduced methane gas (CH_4) emissions to the atmosphere by 893 kg CH_4 and estimated a reduction in carbon dioxide emissions by 17,860 kg CO_2 equivalent (CO_2-eq) per ton of waste transported over approximately 10 months (Lombok, 2022). These reduction figures represent a significant contribution towards achieving the national waste management policy goals set by the Ministry of Environment and Forestry (KLHK) to reduce greenhouse gas emissions.

Table 3. GHG Emission Reduction

CH_4 Emission Factor/Wet Weight of Organic Waste		**Organic Waste of Kampung Hijau Bank Sampah Al-Haqiqi Program**		**CH_4 Emission Reduction Results**
Value	Unit	Value	Unit	0.47 x 1,900 = 893 kg CH_4
0.42-0.47	Kilogram	1,900	Kilogram	
CO_2 Emission/Ton of Organic Waste Transportation		**Organic Waste of Kampung Hijau Bank Sampah Al-Haqiqi Program**		**CO_2 Emission Reduction Results**
Value	Unit	Value	Unit	9.4 x 1,900 = 17,860 kg CO_2
9.4-368	Kilogram	1,900	Kilogram	

Source: Internal Company Data (2022)

Sustainable waste management represents one form of responsibility for the consumption and production practices that have been undertaken, as articulated in SDG Goal 12. Excessive consumption leads to excessive waste generation, thereby affecting the overall waste burden. To achieve economic growth and promote sustainable development, there is a need for awareness regarding the importance of reducing ecological footprints by changing community practices in managing food waste within the environment. Waste management is one of the manifestations of the 17 global goals outlined in the 2030 Sustainable Development Agenda.

The World Commission on Environment and Development (Aminah & Muliawati, 2021), explains that sustainable development is a commitment to meet the needs of the present generation without compromising the needs of future generations. The Brundtland Report (Aminah & Muliawati, 2021) further specifies this commitment in three aspects: economic, social, and environmental. All three aspects can be realized through sustainable waste management at Al-Haqiqi Waste Bank. The waste management policy, through the presence of waste banks, can serve as a solution to reduce waste generation, enhance economic

development through its management, and create a social habit among the Tanah Awu community to manage their environment by maintaining cleanliness and proper waste disposal.

D. CONCLUSION

Kampung Hijau Bank Sampah Al-Haqiqi program, implemented by PT Pertamina Patra Niaga DPPU Bandara International Lombok, responds to environmental issues in Tanah Awu Village. This research has found that, *firstly*, the CSR program of Al-Haqiqi Waste Bank adopts a new paradigm for waste management and helps change community habits in managing household waste, particularly by employing the concept of circular economy, thus fostering a shift in community thinking, extending beyond the traditional 3R (reduce, reuse, recycle) to the 9R (refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle, and recover).

Secondly, the Kampung Hijau Bank Sampah Al-Haqiqi program encourages the emergence of the circular economy, not only promoting environmental sustainability but also driving economic improvement. The program's name, "Green Village," fosters a discourse of making Reak Village green, where green, psychologically, is closely associated with nature, lushness, and freshness, and signifies growth, fertility, and even health. *Thirdly*, the Kampung Hijau Bank Sampah Al-Haqiqi program accelerates the achievement of development goals, especially with regard to SDG Goal 12 and the reduction of GHG emissions from organic waste management, totaling 893 kg of CH_4 and 17,860 kg of CO_2.

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