



MILLENNIAL-DRIVEN COMMUNICATION IN RURAL SUSTAINABLE WASTE MANAGEMENT THROUGH VILLAGE-OWNED ENTERPRISES (BUM DESA)

Agus Ganjar Runtiko¹, Petrus Imam Prawoto Jati¹, Nisa Roiyasa², Rohmah Nia Chandra Sari¹

¹Communication Science Department, Faculty of Social and Political Sciences, Universitas Jenderal Soedirman, Purwokerto, 53122, Central Java, Indonesia

²English Education Department, Faculty of Cultural Studies Universitas Jenderal Soedirman, Purwokerto, 53145, Central Java, Indonesia

*Email: agus.runtiko@unsoed.ac.id

Abstract. This study examines community empowerment communication strategies in plastic waste management through the establishment of Singa Barong Village-Owned Enterprise (BUM Desa) in Kebarongan village. The research aims to investigate how local governance structures facilitate environmental sustainability initiatives while promoting community economic development, with a particular focus on youth engagement in environmental conservation and plastic waste reduction. The methodology employed qualitative data collection through in-depth interviews with key village stakeholders, primarily featuring discussions with Village Head Harun and other community leaders. The research utilized a participatory approach, conducting structured conversations to gather insights on village governance, economic development strategies, and community-based environmental management practices. The findings reveal that the Singa Barong BUM Desa represents an innovative model of community-driven environmental entrepreneurship, successfully integrating plastic waste management with local economic development. The study demonstrates how village leadership plays a crucial role in mobilizing community participation, particularly among young people, in environmental conservation initiatives. Results indicate that effective communication strategies between village officials and community members are essential for sustainable waste management programs. The research highlights the financial viability challenges of village leadership positions and their impact on program sustainability. Furthermore, the study shows that successful environmental initiatives require strong local governance, community engagement, and innovative business models that transform environmental challenges into economic opportunities. The Singa Barong model demonstrates potential for replication in similar rural contexts, offering insights into community-based approaches for addressing plastic waste while strengthening local economies through environmentally conscious enterprise development.

Keywords: Community empowerment, Plastic waste management, Village-owned enterprise (BUM Desa), Environmental entrepreneurship, Development Communication

1. Introduction

Waste management in rural areas is a major challenge to achieving sustainable development. Villages, as the smallest administrative units in Indonesia, play a fundamental role in driving the transformation of waste management in response to changes in consumption patterns and community behavior, prioritizing environmental and social sustainability. In this context, the involvement of millennials as a productive age group and active social media users is highly strategic for promoting effective communication on

sustainable waste management in villages. The role of millennials in environmental communication is a catalyst for social change that not only relies on a top-down approach but also leverages digital and social media to spread awareness and promote environmentally friendly waste management practices [1].

One important instrument used by village governments to integrate waste management with local economic development is the Village-Owned Enterprise (BUM Desa). Empirical studies in several villages show that the success of BUM Desa-based waste management depends not only on the availability of infrastructure but also on the active involvement of the community and on synergy among the village administration, the private sector, and local communities [2,3]. BUM Desa can turn waste into sustainable business opportunities through community-based waste management innovations and community economic empowerment.

Sustainable waste management can be part of developing local potential and strengthening the village economy, which is one of the main contexts for developing sustainable development communication in rural areas. The active role of millennials as agents of change is relied upon to encourage effective communication and implementation of waste management in villages [4,5].

The success of community-led waste management depends heavily on active community involvement and strong synergy between the village government and local stakeholders [6,7]. This condition is evidence of the application of a theoretical framework of participatory and dialogical development communication, rather than a top-down extension approach that is no longer relevant. Development communication can then serve as a tool for empowerment, promoting community participation and facilitating the creation of shared awareness (co-creation). The ultimate goal is to empower communities, an approach that aims to transform conditions of powerlessness into independence by increasing access to resources, knowledge, and skills. Thus, effective communication strategies are essential to ensure the sustainability of waste management programs while strengthening village institutional structures.

The BUM Desa Singa Barong in Kebarongan Village, Kemranjen District, Banyumas, has made significant progress, particularly in plastic waste management. Established in 2019, this village-owned business entity has expanded from a small-scale operation to processing between 10 and 20 tons of plastic waste every month. This performance has resulted in a significant increase in financial achievements, with an annual turnover of 1.07 billion rupiah in 2024. The sustainability of BUM Desa's plastic waste processing business is supported by improved management and technical skills among its administrators and employees, as well as successful efforts to raise environmental awareness among residents about plastic waste management and recycling. In addition, this BUM Desa plays a crucial role in local socio-economic development by providing employment for 30 local villagers and having a multiplier effect on more than 100 households.

The millennial generation plays an essential role as the main driving force in the management of BUM Desa Singa Barong. The full trust of the village government has placed this young age group in the majority of administrative roles, reaching up to 80%. Most of these young people come from the Halaman Community, a group involved in many community empowerment activities and with superior capabilities to identify and develop the village's potential into economic value. The role of youth community members is not limited to being administrators responsible for the operations of BUM Desa; they also serve as key players and agents of change who proactively encourage economic and social progress in the village.

Millennials, or the Y Generation, born between 1981 and 1999, are characterized by their exceptional education, openness to technology, creativity and originality, perseverance,

sincerity, and high expectations for a successful career that will fulfill them emotionally (8). This generation has a very high level of curiosity, ambition, self-discipline, a desire for new knowledge and experiences, and is active in their environment. Technological changes are easily adopted and well accepted. This makes the millennial generation information-oriented and actively engaged with the digital world. Y Generation can use technology and is even capable of multitasking with digital tools (9).

Research shows that Generation Y spends a lot of time surfing the internet and being active on social media. The internet has become a medium for finding information and a tool for validating information. They do not simply accept information but will check its accuracy online. Generation Y grew up in the era of computerization, which has led them to use the internet extensively in their personal lives and work. When it comes to conveying information, the Y Generation prefers concise, clear, and quick messages, as well as technology that aligns with their preferences.

With this background, research on communication strategies driven by millennials in sustainable waste management through BUM Desa in Kebarongan village is important to study. This research can provide an overview of innovative and sustainable waste management models that empower local communities through participatory communication approaches and digital technology, thereby contributing significantly to the development of environmental policies and holistic village development.

Given the strategic role of millennials as agents of social change and the success of local institutions such as BUM Desa in integrating waste management with village economic development, the case study of BUM Desa Singa Barong in Kebarongan is highly relevant. The involvement of millennials in the management structure and the proactive role of Komunitas Halaman demonstrate the potential for an effective, transformative participatory development communication model that has successfully turned the challenge of plastic waste into a sustainable business opportunity. However, despite its proven success in increasing income and environmental awareness, there is still a lack of empirical studies that specifically analyze the role of communication in supporting the sustainability of local governance structures (BUM Desa) to achieve two simultaneous goals: environmental sustainability through plastic waste reduction and community economic empowerment.

Therefore, the main research question proposed is: “How does the local governance structure (BUM Desa Singa Barong) facilitate environmental sustainability initiatives while promoting community economic development, with a focus on the strategic role of millennial involvement in environmental conservation and plastic waste reduction efforts?”

2. Methods

This study uses a qualitative case study approach to investigate, in depth and holistically (10), the phenomenon of communication driven by the millennial generation in sustainable waste management in rural areas through BUM Desa. A single, intensive case study approach was chosen for its unique relevance to understanding the internal mechanisms, strategies, and social dynamics of the programs run by BUM Desa.

Data was collected through in-depth interviews and structured participatory observation (11,12). In-depth interviews were the main instrument used to explore the perspectives, experiences, and understanding of village stakeholders regarding village governance, economic development strategies, and community-based environmental management practices. In addition, focus group discussions (FGDs) were held to establish a common understanding of the case studies.

Key informants were selected using purposive sampling to ensure representation from various layers directly involved in the BUM Desa program and waste management (13,14). In total, this study involved 24 informants, grouped as follows:

1. Village stakeholders, consisting of 18 people, including the village head, community leaders, and traditional leaders. This group provides insight into village-level decision-making, policy support, and general program acceptance.
2. BUM Desa business operators, consisting of six people, including the BUM Desa core management (director, secretary, treasurer) and operational employees directly involved in the waste management unit. This group provides practical details regarding daily operations, internal communication challenges, and the implementation of millennial-based strategies.
3. Community members who are directly or indirectly involved in the waste management activities of the Village-Owned Enterprise (BUM Desa). Those directly involved in waste management are residents who assist with the core business of the BUM Desa, but are not employees; for example, households that help with plastic finishing. Meanwhile, those who are not directly involved are residents who are not involved in the BUM Desa business, but assist with waste management; for example, PKK women who help collect used bottles in their neighborhood.

The collected interview data were recorded, transcribed, and analyzed using thematic analysis techniques. This process involved coding the data to identify recurring patterns, categories, and main themes related to millennial communication, community participation, and sustainable waste management. The validity of the findings was strengthened through data triangulation by comparing information from different groups of informants (village heads, village-owned enterprise administrators, and employees) with the results of field observations, yielding rich and accountable interpretations in accordance with the principles of qualitative rigor. (15).

Researchers, who are the primary instruments in qualitative research, must possess a broad understanding and theoretical insight to gain a holistic view of the context being studied. Therefore, they must be able to ask questions, analyze, capture, and construct the objects being studied to make them clearer, more detailed, and more meaningful, especially in relation to data validity-checking techniques in qualitative research. Qualitative research uses triangulation techniques to examine data validity, including method triangulation, inter-researcher triangulation (when research is conducted in groups), data source triangulation, and theory triangulation. while credibility, transferability, dependability, confirmability, and authenticity can be used to assess the degree of data validity in qualitative research (19).

3. Results and Discussion

3.1. Result: The 7-year-old BUM Desa is still profitable

Kebarongan is a village located in Banyumas, Central Java, Indonesia. The village covers an area of 470 hectares, divided into two parts: 215 hectares of rice fields, and the rest is land and mountains. The majority of Kebarongan's residents work as farmers, fishermen, and ranchers. The economy of Kebarongan village is not yet considered prosperous, forcing most young people to seek work outside the village or abroad.

This village has a village-owned enterprise (BUM Desa) called Singa Barong. The establishment of BUM Desa in Kebarongan is part of the central government's policy in line with the village government's expectations for village economic development, as stated by the informant:

“My hope is that Bumdes will become the backbone of rural economic development and provide employment opportunities for the community. This means that the community's needs can be met, not just by waiting for government assistance, but eventually becoming self-sufficient with employment

opportunities provided by the village through BUM Desa. So that in the future, Kebarongan can become self-sufficient....” (Ha-032025)

Currently, several types of businesses are carried out, with plastic manufacturing being the village's main business. In addition, the businesses carried out by BUM Desa Singa Barong include building rentals, ornamental plant sales, and grocery stores.

The establishment of Village-Owned Enterprises (BUM Desa) is in line with Law No. 6 of 2014 on Villages and the central government's encouragement through the Village Fund. There are at least four articles in the Village Law that explain BUM Desa, namely Articles 87, 88, 89, and 90. BUM Desa is expected to play an important role in developing the potential of villages, particularly in managing village finances in their respective areas.

The Village Fund Scheme supports the existence of Village-Owned Enterprises (BUM Desa) through capital participation. The latest government policy states that at least 20 percent of the Village Fund is allocated to BUM Desa, in accordance with Village Minister Regulation No. 2 of 2024 and Village Minister Decree No. 3 of 2025. In addition, the government is currently including BUM Desa in its priority program for food security in villages.

“At that time, the Village-Owned Enterprises were indeed programmed by the government, which I greatly appreciated. I wanted a business that could be economically viable or accommodate as many people as possible from the community.” (Ha-042025)

The establishment of the BUM Desa Singa Barong was first discussed by community representatives in the Village Representative Council (BPD) in 2018. The BUM Desa, which focuses on plastic manufacturing, began operating in mid-2020. The slow process of establishing the BUM Desa was due to concerns about business failure. Moreover, at that time, there were rumors circulating in the community that the BUM Desa was expected to contribute 1 billion rupiah to the Village Revenue and Expenditure Budget (APBDes).

“At the end of 2018, as the head of the Village Council, I led a discussion on Village-Owned Enterprises (BUM Desa). The establishment of BUM Desa is related to the Village Fund, which amounts to 1 billion per year and will only be available until 2024. It is hoped that BUM Desa will contribute 1 billion rupiah to the Village Budget (APBDes) in 2024. A suitable business venture has not yet been found, due to concerns about failure.” (Shi-032025)

The selection of plastic product processing as a BUM Desa business unit was influenced by a resident who owned a business in the plastic manufacturing sector. In fact, the BUM Desa was initially located in the resident's home. The reason for this was its proximity to an electricity pole, as plastic molding machines require a large amount of electricity that cannot be supplied by a standard household power supply.

“...since the beginning, Pak Trisno has been a plastic entrepreneur, so I involved him from the start of the establishment of the BUM Desa. Pak Trisno was also the one who suggested plastic. At first, I wasn't interested. But after analyzing several business units and finding them too risky, we finally switched to plastics. Pak Trisno was probably the one who started plastic manufacturing in Kemranjen District. He mastered everything from mechanics to marketing.” (Ha-032025)

Currently, plastic manufacturing has been moved to a former elementary school building that is no longer in use. The village government has allocated significant funds to meet the electricity needs of the plastic manufacturing facility. The electricity installed at the plastic manufacturing site will also be used in the new business, namely to power grain-drying machines rented out to farmers.

The income of BUM Desa has always been increasing. In 2024, the annual turnover reached 1.07 billion rupiah, with a net profit of 140 million rupiah. This amount has increased dramatically when compared to the early days of BUM Desa. In 2020, for example, the profit was only 7 million rupiah, then rose to 60 million rupiah in 2021, and 90 million rupiah in 2022.

The increase in BUM Desa's income has affected the earnings of its management and employees. Currently, they have succeeded in paying their management above the Banyumas Regency minimum wage (UMK). Meanwhile, employees are paid based on their performance, ranging from 1.5 million to 2 million rupiah per month.

“Currently, there are approximately 30 employees at BUM Desa Singa Barong, working in three shifts over a 24-hour period. The average salary is now between 1.5 million and 2 million rupiah. The management earns more than that, between 2.5 million and 3.5 million rupiah. It can be said that BUM Desa's income has increased significantly. But the problem remains the same, namely, raw materials and capital. The difference is that in the past, it was difficult to find 10 million in capital and 100 kilograms of raw materials, but now it is difficult to find 2 billion in capital and 2 tons of raw materials.” (Sy-052025)

3.2. Discussion: The role of millennials in empowerment communication

Millennials show significant potential as agents of sustainable development at the rural level. The involvement of young people in economic empowerment is an important factor in building socio-economic welfare in villages (19). In the context of Kebarongan Village, field data show that the presence of educated and experienced young people is the primary catalyst for activating collective awareness in village resource management. Through the BUM Desa, this generation acts not only as entrepreneurs but also as facilitators of social change, connecting modern innovation with local needs. The significant role of the millennial generation in running BUM Desa businesses was conveyed by Village Head Harun as follows:

“I used to reject many people who wanted to apply to become BUM Desa administrators because they were too old, as I considered them to be lacking in innovation. In addition, I preferred administrators who were single, because when people are married and then become volunteers, it is certainly difficult, as they have responsibilities to their children, wives, and families. When the BUM Desa first started its business, the administrators did not receive salaries, only a percentage of annual profits. So their income was very minimal, which was not suitable for people who already had families.” (Ha-042025)

Research shows that young people in rural areas are increasingly using digital technology to drive innovation in business and entrepreneurship (18). The younger generation's awareness of getting involved in village development does not arise solely from top-down communication from the government, but rather from grassroots initiatives that are then accommodated by local governments. The factors that trigger this involvement include two main dimensions. First, the formation of intellectual communities, such as discussion groups that focus on education and local economic issues, serves as a forum for young people to explore solutions to village problems. Second, the emergence of individuals with technical and leadership skills who can translate collective aspirations into concrete actions through formal institutions such as BUM Desa. Further research reveals that local cultural values and

the social environment have a dominant influence in shaping the constructive behavior of the younger generation (19).

Structured communication is a crucial element in maintaining young people's participation in sustainable development initiatives. Participatory communication has proven effective in enabling active community participation in the planning, implementation, and evaluation of development programs (23). Ongoing discussion forums that address substantive issues—ranging from village economic growth and financial management to social risks such as online gambling and online lending—create a collaborative learning ecosystem. Through this communication mechanism, the younger generation does not merely receive information but actively contributes to the decision-making process, including the direction of village development.

Research also shows that open and transparent communication enables young people to play a critical role in monitoring and controlling policies implemented by village governments (20). The high idealism and sincerity of young people's activities make them potential agents of change. The younger generation's leadership role in BUM Desa, as represented by the director, demonstrates a commitment to transparency and accountability in managing village assets and resources. Despite facing significant challenges—including limited financial resources in the early stages of operation—this generation has shown resilience in consolidating public trust and building a sustainable institutional foundation.

Recent research shows that not all aspects of BUM Desa development are optimal. The performance of BUM Desa is greatly influenced by community preferences for BUM Desa with physical buildings rather than those running community-based businesses (21). In addition, many villages need greater capacity to develop a vision for sustainable development. Not all members of the younger generation show the same commitment to village development initiatives. The phenomenon of digital apathy and diverse preferences among millennials has created fragmentation in collective participation. Several studies have noted that young people's awareness of their strategic role is still low, accompanied by a lack of guidance and communication from village governments (22).

However, the existence of community institutions with clear socio-economic objectives can shift the younger generation's energy from consumption to productive contributions. Adaptive and inclusive communication strategies are key to expanding the base of youth participation in sustainable resource management initiatives in villages. By utilizing modern communication channels and maintaining meaningful face-to-face dialogue, BUM Desa can consolidate the momentum for change initiated by the younger generation. Thus, the millennial generation not only plays a role as beneficiaries of village development but also as initiators in creating authentic, context-specific models of sustainable development in accordance with each village's characteristics.

“BUM Desa Kebarongan has two sales strategies: online and offline. We use social media to offer our products. Thank God, almost all Indonesian broom craftsmen have ordered (plastic equipment) from BUM Desa Kebarongan. Recently, Singa Barong has conducted transactions with customers from Kalimantan, Medan, and Sulawesi. Meanwhile, the offline sales strategy is carried out in collaboration with several collectors of plastic products produced by BUM Desa.” (Fa-042025)

Millennials in rural areas are catalysts for community empowerment through their technological and communication skills, strengthening social capacity, and disseminating development initiatives that are accommodative, participatory, and grounded in local aspirations, with a tendency toward bottom-up communication patterns (23). In the context of research in Kebarongan Village, the millennial generation plays at least four significant roles in efforts to empower rural communities.

First, as drivers of innovation and development initiatives. Millennials in villages act as agents of change, actively promoting development initiatives that address local needs. They utilize the internet and digital technology to articulate their aspirations, develop BUM Desa programs, and bridge communication between the community and the government and other parties.

Second, strengthening communication networks and social solidarity. Millennials help initiate and maintain effective inter-village communication networks through online platforms. In the context of BUM Desa business development, they use online media to connect with buyers outside the island and buyers from abroad. Meanwhile, social solidarity is strengthened by viralizing the profiles of BUM Desa businesses that are oriented towards addressing environmental issues through social media, so that the government will hopefully take notice.

The conceptualization of the public sphere can be used to analyze the construction of public opinion on development (24). The concept of a pluralistic, open public sphere that includes diverse actors can support the millennial generation's role in empowering rural communities. Millennials who play a role in empowerment often find and build alternative public spheres that are horizontal and egalitarian. Through digital communication technologies and social media, they can create new discursive spaces independent of mainstream media dominance.

Third, the development of a new public sphere in the digital world. The role of millennials is also evident in the formation of new public spaces in the virtual world that enable broad dialogue and participation in issues related to the development of BUM Desa. This opens up opportunities for villagers to be directly involved in the development process and democratic decision-making.

Fourth, drivers of participatory communication. The millennial generation plays a key role as drivers of participatory communication for village progress. Through the internet, they effectively amplify the voices of village communities on a massive scale. This role is vital, especially in supporting Village-Owned Enterprises (BUMDes). Millennials can promote BUMDes products, services, and successes while attracting investment and collaboration. In addition, they drive empowerment communication that encourages participatory development models. This prioritizes local aspirations and horizontal collaboration among residents, ensuring that BUMDes initiatives and village development are truly responsive to the community's real needs.

Table 1. The important role of millennials in empowering rural communities through communication

Generation	Innovation	Communication	Democracy	Empowerment
Millennials	Rural Millennials drive innovation, serve as change agents, and leverage digital technology to advance local development initiatives and enhance communication.	Millennials strengthen communication and social solidarity, leveraging digital platforms to connect markets and create alternative, egalitarian public spheres for empowerment.	Millennials develop new digital public spheres, fostering broad dialogue and participation in BUM Desa development and democratic decision-making among villagers.	Millennials drive participatory communication, effectively channeling village voices online to promote BUM Desa and encourage responsive, collaborative development models.

Source: research results

3.3. Diskusi: Keberlanjutan Peran Generasi Muda untuk Perubahan Masyarakat Desa

Interviews with key informants in the study revealed a potential gap among younger generations in empowering rural communities. When key informants were asked about the potential of younger generations to become drivers of change in their communities, their responses were as follows:

“So far, there has been no younger generation that plays an important role in community empowerment. Perhaps there is actually an intention to play a role (in empowerment) in the community, but there is confusion about how to start. Meanwhile, to get started, they need ideas, time, and sacrifice.” (Fa-05/2025)

Basically, the younger generation is the main source of energy and strength in village development (25). They usually become the driving force behind development by playing an active role in village youth organizations, such as youth groups and other communities that focus on education, the economy, and socio-culture. With the younger generation's participation in these organizations, they can identify development goals and mobilize local resources.

Case studies and narratives from villages in Indonesia show that the involvement of the younger generation in village empowerment can be triggered by the presence of communities focused on education, the economy, and social issues, as well as by leaders or driving forces who embrace and motivate the younger generation to join. The existence of discussion spaces and community activities is important to encourage the sustainability of the younger generation's role.

Obstacles often faced by the younger generation include a lack of encouragement and motivation from the village government, changes in the interests of the younger generation towards things such as online games that can divert their focus from productive activities, and the need for clear support and space so that young people can play an optimal role in the village (26). The role of the village government and village officials is also crucial in supporting the aspirations of the younger generation by providing opportunities for participation, motivation, and effective communication, so that they feel empowered and can make a real contribution to village development.

However, there are challenges to be faced, including limited access to capital, a lack of training and mentoring opportunities, and negative influences such as apathy or the younger generation's tendency toward less productive activities (e.g., online games). Therefore, support in the form of education, training, participation spaces, and public awareness of the importance of the younger generation's role is crucial to realizing their potential optimally.

The involvement of young people in rural community empowerment is an important aspect in promoting sustainable development, given their role as agents of social change and innovation. Young people have greater opportunities to actively participate in rural development, both by providing labor and by offering creative ideas that can accelerate the development process. The active participation of young people can enhance the effectiveness of rural programs by fostering an inclusive, equitable participatory process (27).

In the context of empowerment, the role of the village government as a facilitator, motivator, and provider of space for participation is essential to realizing the potential of the younger generation optimally. Institutions such as Karang Taruna or BUM Desa must be empowered as strategic forums for engaging and empowering rural youth, so that they are not

only implementers but also decision-makers in village development. Furthermore, the existence of discussion forums and training programs that hone entrepreneurial, technological, and local leadership skills has proven effective in increasing young people's capacity to manage local resources and contribute to food security and rural economic development (28).

The impact of social and cultural changes affecting rural communities, including the tendency of younger generations to engage in less productive activities such as online gaming, requires a holistic approach from various parties. Village governments need to initiate programs that are not only administrative in nature but also prioritize effective communication, social inclusion, and capacity building based on real needs in the field (29). In this way, the younger generation can develop a sense of ownership of the village and be motivated to contribute sustainably.

Overall, the younger generation's desire to participate in village development depends heavily on the synergy among institutional support, access to resources, and collective awareness of the importance of active participation in the development process. This must be accommodated by policies that provide real space and opportunities for the younger generation to develop and lead sustainable village transformation (30)

4. Conclusion

The study on millennial-driven communication in rural sustainable waste management through the Village-Owned Enterprise (BUM Desa) Singa Barong in Kebarongan Village reveals several critical insights into the relationship between local governance, youth engagement, and environmental entrepreneurship. The findings demonstrate that the involvement of millennials as key actors in the management and operation of BUM Desa has been instrumental in transforming plastic waste management from a mere environmental challenge into a viable economic opportunity. This generational engagement leverages millennials' capacity for innovative communication, particularly through digital and social media platforms, to effectively raise environmental awareness and promote sustainable practices within the community.

The research highlights that successful waste management initiatives require more than infrastructure and regulatory support; they also rely heavily on active community participation and a synergistic partnership among the village government, local stakeholders, and youth organizations. By positioning young people as majority administrators, the village leadership has fostered a sense of ownership, motivation, and empowerment among the millennial population, which in turn has reinforced the sustainability of the enterprise's operations.

Moreover, the study underscores the importance of developing inclusive communication strategies that prioritize dialogical and participatory approaches over hierarchical, top-down models. These strategies empower marginalized groups and build collective awareness through co-creation, enhancing community resilience and institutional capacity.

Despite challenges such as limited access to capital, insufficient training opportunities, and potential disengagement due to negative influences like online gaming apathy, the integration of effective communication and supportive policies has created enabling conditions for sustained community engagement. The Singa Barong BUM Desa exemplifies a replicable model for rural areas seeking to align environmental conservation with socio-economic development through active millennial participation and innovative governance.

In conclusion, this study offers valuable evidence that youth-driven communication and participatory governance models are essential in developing sustainable rural waste management systems that simultaneously advance environmental and economic objectives.



5. Acknowledgement

The authors would like to thank the Institute for Research and Community Service (LPPM) of Unsoed for providing research funding through the Unsoed Basic Research scheme with contract number: 14.282/UN23.34/PT.01/V/2025. These proceedings are a mandatory output of the research title: “The Role of the Millennial Generation in Communication for Sustainable Waste Management Empowerment through Bumdes Singa Barong, Kebarongan, Banyumas”.

References

- [1.] Efendi S, Sunjaya H, Kurniawan S. The Role of Social Media in Raising Environmental Awareness among Millennials. *CONVERSE J Commun Sci*. 2024 Dec 19;1(3):6.
- [2.] Rechandy Christian A. Analysis of waste management policies based on village owned enterprises (Bumkal) (empirical study on Caturharjo Village). Zubaidah S, Saifuddin MF, De Carvalho GS, Sugahara T, Lestari SR, Ziarati P, et al., editors. *BIO Web Conf*. 2024;148:02033.
- [3.] Selfi Budi Helpiastuti, Julvia Nurlaela Firmawati, Ladiqi S. From Waste to E-Money: The Role of Village-Owned Enterprise in Community Empowerment in Jember, Indonesia. *J Pemberdaya Masy Media Pemikir Dan Dakwah Pembang*. 2024 Dec 26;8(2):141–62.
- [4.] Musi R. Etika Kaum Muda Indonesia Dalam Gerakan Waste for Change: Mengubah Tantangan Menjadi Peluang Lingkungan Bersih. *J Ekol Masy Dan Sains*. 2025 May 11;6(1):84–95.
- [5.] Yunandar F, Aji JF, Wibisono W, Purwanto E. Strategi Komunikasi Publik dalam Kampanye Pengelolaan Sampah. *Interact Commun Stud J*. 2025 Jan 25;1(4):20.
- [6.] Arifin MZA, Suluh Wijaya INSW, Firdausiyah NF. PARTISIPASI MASYARAKAT DALAM PENGELOLAAN SAMPAH DI DESA KENEP KECAMATAN BALEN KABUPATEN BOJONEGORO. *Tata Kota Dan Drh*. 2024 Dec 31;16(2):207–16.
- [7.] Salsabila L, Ariany R, Koeswara H. Fostering Community-Led Waste Management Through Dynamic Governance: A Case Study of Batam City. *J Bina Praja*. 2024;16(1):187–200.
- [8.] Bolton RN, Parasuraman A, Hoefnagels A, Migchels N, Kabadayi S, Gruber T, et al. Understanding Generation Y and their use of social media: a review and research agenda. Aksoy L, editor. *J Serv Manag*. 2013 June 14;24(3):245–67.
- [9.] Zis SF, Effendi N, Roem ER. Perubahan Perilaku Komunikasi Generasi Milenial dan Generasi Z di Era Digital. *Satwika Kaji Ilmu Budaya Dan Perubahan Sos*. 2021 Apr 10;5(1):69–87.
- [10.] Crowe S, Cresswell K, Robertson A, Huby G, Avery A, Sheikh A. The case study approach. *BMC Med Res Methodol*. 2011 Dec;11(1):100.



- [11.] Rutledge PB, Hogg JLC. In-Depth Interviews. In: Bulck J, editor. The International Encyclopedia of Media Psychology [Internet]. 1st ed. Wiley; 2020 [cited 2025 Nov 8]. p. 1–7. Available from: <https://onlinelibrary.wiley.com/doi/10.1002/9781119011071.iemp0019>
- [12.] Denny E, Weckesser A. How to do qualitative research?: Qualitative research methods. BJOG Int J Obstet Gynaecol. 2022 June;129(7):1166–7.
- [13] Campbell S, Greenwood M, Prior S, Shearer T, Walkem K, Young S, et al. Purposive sampling: complex or simple? Research case examples. J Res Nurs. 2020 Dec;25(8):652–61.
- [14] Ahmad M, Wilkins S. Purposive sampling in qualitative research: a framework for the entire journey. Qual Quant. 2025 Apr;59(2):1461–79.
- [15] Jentoft N, Olsen TS. Against the flow in data collection: How data triangulation combined with a ‘slow’ interview technique enriches data. Qual Soc Work. 2019 Mar;18(2):179–93.
- [16] Susanto D, Risnita, Jailani MS. Teknik Pemeriksaan Keabsahan Data Dalam Penelitian Ilmiah. J QOSIM J Pendidik Sos Hum. 2023 July 1;1(1):53–61.
- [17] Nurlinayanti L, Nugroho L, Mudita M, Najuah N, Refranisa R, Mihadi Putra Y, et al. Circular Economy di Tingkat Desa: Pemberdayaan Karang Taruna dalam Pengelolaan Sampah Melalui Bank Sampah. Dedik J Pengabdian Kpd Masy. 2025 May 19;4(1):92–101.
- [18] Andini Syahrani. Transformasi sosial masyarakat pedesaan di era milenial. Maliki Interdiscip J [Internet]. 2024 Oct 31 [cited 2025 Nov 8];2(10). Available from: <https://urj.uin-malang.ac.id/index.php/mij/article/view/11578>
- [19] Gultom GR, M Chaerul Rizky, Gerhard Grandnaldy Manurung, Khalisa Umaira Ismail, Dini Andriani Lubis, Puspita Wulandari. The Role of Village Culture and Social Environment on the Behaviour of the Young Generation. J Educ Manag Res. 2025 June 11;4(1):209–22.
- [20] Yanti F, Prastiwi H. Optimizing participatory communication in integrated village development. Bricol J Magister Ilmu Komun. 2024 Sept 24;10(2):257.
- [21] Mardiana, Muhammad Helmi Falah, Prihadyanti D. Village-Owned Enterprises (BUM Desa) Management Strategy Towards Sustainable Village Development. J Manaj Teknol. 2024 Sept 11;23(2):91–107.
- [22] Mel Asni Gustiani, Otong Husni Taufiq, R. Rindu Garvera. Youth Participation in Village Development in Imbanagara Village, Ciamis District, Ciamis Regency. J Dialekt J Ilmu Sos. 2025 Aug 31;23(2):551–9.
- [23] Priyadharma S. Internet and Social Change in Rural Indonesia: From Development Communication to Communication Development in Decentralized Indonesia [Internet]. Wiesbaden: Springer Fachmedien Wiesbaden; 2021 [cited 2025 Nov 12]. Available from: <https://link.springer.com/10.1007/978-3-658-35533-3>



- [24] Alexander JC. Habermas's New Critical Theory: Its Promise and Problems *The Theory of Communicative Action. Vol. 1, Reason and the Rationalization of Society*. Jurgen Habermas, Thomas McCarthy. Am J Sociol. 1985 Sept;91(2):400–24.
- [25] Reynaldi A, Ibrahim Khan, Krisnawati. Peran Pemuda Dalam Pembangunan Desa. Tasnim J Community Serv. 2021 May 31;2(1):29–37.
- [26] Widyawati, Ahmad Farouq Mulku Zahari, Firdaus, Maulid, Ratna Sari Alauddin, Sapriyadi, et al. Mengoptimalkan Peran Pemuda Desa dalam Menghadapi Era Society 5.0. J Pengabdian Kpd Masyarakat. 2022 Dec 19;3(2.1 Desember):1003–7.
- [27] Mikasih Y, Fitrianti F, Juaris J. PARTISIPASI PEMUDA DALAM PEMBANGUNAN GAMpong GENUREN KECAMATAN BINTANG, KABUPATEN ACEH TENGAH. J Adm Negara. 2024 July 1;30(1):48–70.
- [28] Gahung EA, Gosal TAMR, Singkoh F. PERAN PEMERINTAH DALAM PEMBERDAYAAN PEMUDA DI DESA LIWUTUNG KECAMATAN PASAN KABUPATEN MINAHASA TENGGARA. J Eksek [Internet]. 2017 Apr 6 [cited 2025 Nov 13];1(1). Available from: <https://ejournal.unsrat.ac.id/v3/index.php/jurnaleksektif/article/view/15433>
- [29] Satriyadi; Fadillah Putri Adeana; Masriana; Aulia Rahman; Alda Putriana; Hasimah Harahap; Khairun Nisa; Muhammad Nuryansyah Nugraha; Sri Rahmayanti Berutu; Tia Anggraini Silalahi; Tiara Paramita Purba; Juliani Afrida. PERAN PEMERINTAH DESA TERHADAP GENERASI MILENIAL DI LAUT DENDANG. Educ J Ilmu Pendidikan Dan Kependidikan [Internet]. 2022;(Vol. 1 No. 3 (2022): Desember 2022). Available from: <https://jurnal.insanciptamedan.or.id/index.php/educandumedia/article/view/33/34>
- [30] Mulia SS, Fadhila R, Zahida KA, Wijanarko T. Di Antara Mimpi dan Aksi: Langkah Nyata Generasi Muda dalam Dinamika Pembangunan Sosial Berkelanjutan. J Pendidik Guru Sekolah Dasar. 2025 June 1;2(4):14.