

Islam and Environmental Protection: The Implementation of Ecological Dakwah in the Makassar "Zero Waste" Community

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ABSTRACT

Efforts to reduce waste need to continue to be declared. This is important because an increase in the amount of waste will have an impact on the environment and lead to numbers of problems in life. The production of waste is influenced by a variety of factors. Among them is an understanding of waste handling and consumer lifestyle. However, there are still groups of people who care about environmental conservation. One of them is the Makassar "Zero Waste" community. The aim of this research is to find out the implementation of the ecological perspective in the "Zero Waste" community as an effort to preserve the environment and reduce the waste result. The method used is qualitative descriptive, with the use of in-depth interview on single subject and observation as data collection techniques. The data in this research is analyzed using description analysis to the community. The results of this research shows that the implementation of ecological perspectives in the "Zero Waste" community includes 1) *dakwah bil-lisan*, in the form of providing training, becoming speaker and educating the public; 2) *dakwah bil-kitabah*, promoting waste management through social media communities; and 3) *dakwah bil-hal*, implementing a "waste fasting" lifestyle and collaborating with related stakeholders such as government and private agencies.

KEYWORDS Ecological Dakwah, Environment, Islam, Zero Waste Community

ABSTRAK

Upaya untuk mengurangi sampah perlu terus disuarakan. Hal ini penting sebab peningkatan jumlah sampah akan berpengaruh pada lingkungan dan akan menimbulkan berbagai persoalan dalam kehidupan. Produksi sampah dipengaruhi berbagai macam faktor. Di antaranya adalah pemahaman tentang pengolahan sampah dan pola hidup konsumtif. Akan tetapi, masih ada kelompok masyarakat yang peduli tentang pelestarian lingkungan. Salah satunya komunitas "Zero Waste" Makassar. Tujuan penelitian ini adalah untuk mengetahui implementasi *dakwah* perspektif ekologi pada komunitas "Zero Waste" dalam upaya melestarikan lingkungan dan mengurangi produksi sampah. Metode yang digunakan adalah deskriptif kualitatif, dengan *in-depth interview* dan observasi sebagai teknik pengumpulan data pada informan tunggal. Data penelitian ini dianalisis menggunakan analisa deskriptif pada komunitas tersebut. Hasil penelitian ini menunjukkan bahwa implementasi *dakwah* perspektif ekologi pada komunitas "Zero Waste" meliputi 1) *dakwah bil-lisan*, dalam bentuk memberikan pelatihan, menjadi narasumber dan memberikan penyuluhan; 2) *dakwah bil-kitabah*, memberikan edukasi melalui sosial media komunitas; dan 3) *dakwah bil hal*, menerapkan pola hidup "puasa sampah" dan berkolaborasi dengan instansi atau lembaga yang bergerak dalam bidang pelestarian lingkungan.

KATA KUNCI Dakwah Ekologis, Islam, Komunitas Zero Waste, Lingkungan

Introduction

Waste remains a significant problem in the human and natural environments. Discussing it often proves unpopular due to the general public's perception of waste as something valueless and devoid of societal benefit. This is a common mindset among individuals that are unaware of the importance of "zero waste" and proper waste management practices. The escalating volume of waste observed today is attributed to two key factors: population growth and lifestyle demands. As stated by El-Haggag (2007), an individual's level of advancement and prosperity directly correlates with the amount of waste he/she generates. This increase in waste generation directly stems from the rise in the number of population, leading to a proportional increase in public consumption. Landfills in major cities are scarce due to the conversion of open land into towering concrete structures. This scarcity, coupled with the continuous influx of garbage, leads to a rapid depletion of landfills' capacity. The resulting accumulation of unmanaged waste gives rise to unsightly "garbage mountains" (Nizar, 2020).

The Makassar City Environment Office recorded that each person in the city generates an average of 0.6 kg of waste daily. With a population of 1.5 million, this translates to 1,100 tons of waste produced each day. This calculation was verified through simulations at the Antang landfill site or Tamangapa landfill (Kassa, 2022). While Makassar, with a population of 1,408,072 in 2013, is considered a major city in Indonesia, the data obtained suggests a daily waste volume of around 500-600 tons. As the city's population increases, the volume of waste brought to the Antang Landfill also rises proportionally. For instance, the population reached 1,428,564 in 2014, with an annual waste generation of 247,182.73 tons. In 2015, this number further increased to 681,715.61 tons with a population of 1,449,401 (Juhaidah, Usman & Subagiyo, 2019). These figures emphasize the direct relationship between population growth and the amount of waste generated.

Constitution Number 18/2008 on Waste Management emphasizes the need to shift from conventional waste management practices to an approach that prioritizes waste reduction and proper treatment. Waste reduction strategies encompass limiting waste generation, recycling, and reusing waste, collectively known as the "3R" principles: Reduce, Reuse, Recycle. However, the implementation of 3R acts in communities faces significant challenges, primarily due to insufficient public awareness regarding waste sorting (Wulandari, 2014).

The urgency of community participation in implementing policies, particularly in the environmental sector, stems from the interconnected relationship between humans and the natural environments. The environmental policies programs primarily aim to enhance the quality of the natural environment, which impacts on the lives of residents within the area directly or indirectly. A healthy environment fosters a better quality of life for its inhabitants. Meanwhile, community behavior also plays a critical role in modifying environmental quality. As has been empirically demonstrated, excessive human activities can lead to pollution and environmental damage. Therefore, the environmental policies often resemble a

remedial effort addressing existing environmental damage. Consequently, the social dimension holds the key to the success of the environmental policies programs. In this context, community participation can be viewed as a tangible action in realizing these programs, ultimately leading to behavioral changes and improvements in the surrounding environment (Oktarini, 2014).

The community participation in tackling environmental issues manifests in various ways and forms. One such example is demonstrated by a community-based organization in Makassar. Based on interview data with Ainun Qalbi Muthmainnah, head of the Makassar "Zero Waste" Community, this group has been actively engaged in environmental conservations since November 2018. The community was initially established by two individuals inspired by a "Zero Waste" class taught by Dian Kusuma (DK) Wardhani. Following the class, participants were encouraged to create communities dedicated to the environmental conservation. This initiative led to the formation of the Makassar "Zero Waste" Community, which currently boasts around 70 volunteers.

Numbers of previous studies have explored waste reduction and management with the community involvement. One such example is Faqih's (2015) research on strengthening the capacity of students who care about waste. This study, conducted in collaboration with students from the Islamic Community Development Study Program at UIN Walisongo Semarang, aimed to achieve three objectives: First, increase the knowledge of students about the waste management system in their campus environment, fostering student awareness and concern regarding waste issues within the campus environment, and encouraging individual and collective student action in carrying out collaborative waste management initiatives. The research employed the PRA (Participatory Rural Appraisal) method and demonstrated its effectiveness in: enhancing students' knowledge capacity concerning waste management, facilitating knowledge transfer, value transfer, and skill transfer among students through PRA.

Second, a study by Hikmahtussa'adah (2018) investigates community participation in managing environmental cleanliness through the waste bank program in Bambankerep village, Ngaliyan sub-district, from the perspective of "*dakwah bil-hal*" (action-oriented preaching). This research aims to: describe community participation in environmental hygiene management through the waste bank program, seen as a form of implementing "*dakwah bil-hal*"; analyze the impact of this participation on managing environmental cleanliness. The study suggests that *dakwah bil hal* approaches implemented through environmental hygiene initiatives, particularly through PKK activities and waste-saving practices for economic benefit, prove highly effective. The author categorizes the community participation as actively contributing. Consequently, tangible impacts that community gain is the ability to sort and process waste effectively. This leads to generate economic benefits through responsible waste management.

Third, Alwi et al. (2020) conducted research exploring the environmental preservation as a form of "*dakwah bil-hal*" (action-oriented preaching) and its impact on public awareness. The study was conducted in Makassar and focused on environmental conservation efforts undertaken through "*dakwah*" and the implementation of "*dakwah bil-hal*" values to preserve the environment. The

findings of the study suggest that the implementation of "*dakwah bil-hal*" can be observed in the Makassar Government's slogan "*Makassar Tidak Rantasa*" (MTR). This slogan is interpreted as both a commitment and a successful program in altering public behavior towards protecting the environmental awareness.

Fourth, Yaqinah (2019) conducted research on the implementation of environment-based *dakwah* (Islamic preaching) at the Nurul Haramain Narmada Islamic boarding school in West Lombok. Utilizing a case study approach, the research revealed that the school implemented environment-based *dakwah* through various forms. Persuasive *dakwah*. This involved utilizing different methods of preaching, including *dakwah bil-lisan* (verbal preaching), *dakwah bil-qalam* (written preaching), and *dakwah bil-hal* (action-oriented preaching). Participatory *dakwah*. This manifested in the form of boarding school policies that promotes a clean environment, tree planting and reforestation initiatives, and "free tree movements" (likely referring to programs encouraging tree distribution or planting).

Previous studies reviewed above explored various aspects of environmental conservation within diverse contexts and locations. Faqih (2015) investigated the effectiveness of mentoring programs in enhancing students' understanding of waste management, focusing on students of the Islamic Community Development program at UIN Walisongo Semarang. Hikmah **tussa'adah** (2018) examined efforts to maintain environmental cleanliness through the "Waste Bank" program implemented in Ngaliyan District, Semarang City. Alwi et al. (2020) explored the implementation of "*dakwah bil-hal*" (action-oriented preaching) through the "*Makassar Tidak Rantasa*" (MTR) slogan in Makassar. Finally, Yaqinah (2019) studied the implementation of environment-based *dakwah* within an Islamic boarding school in West Lombok Regency. A noteworthy gap exists in the literature: none of these studies have specifically addressed the implementation of "ecological *dakwah*" within the context of the Makassar "Zero Waste" community. This gap motivates the present research, which aims to explore this specific topic.

Theoretical Framework

The term "Zero Waste" (ZW) first emerged in 1973, coined by Palmer (2005) to describe the recovery of natural resources from chemical waste. In 1995, several cities worldwide adopted "No Waste" legislation aiming to achieve waste reduction targets by 2010. Notably, Canberra became the first city to successfully implement a ZW program (Connett & Irons, 2013; Snow, 2003). The concept of Zero Waste is recognized as an effective strategy for tackling waste issues (United Nations Environment Assembly 2019). It advocates for a fundamental shift in resource supply chains, moving away from outdated models and striving towards the complete reuse or recycling of all products and by-products.

Achieving zero waste in urban centers remains a distant dream without a comprehensive understanding of the system. This includes: the nature and volume of inputs and outputs (waste), the longevity of stockpiles, and the production of

gaseous, solid, and liquid pollutants from system activities (Awasthi et al., 2021). To minimize waste, we must gain deeper insights into the specific drivers, dynamics, and challenges associated with materials, components, and products throughout their lifecycle within the system.

Method

This research utilizes a descriptive qualitative approach to examine the implementation of ecological *dakwah* within the Makassar "Zero Waste" community. Data Collection uses primary data and secondary data. Primary data: this would be gathered through interviews and observations conducted within the community. Secondary data: this would be collected from various sources, including books, scientific journals, theses, ebooks, news articles, and social media platforms like Research Subjects and Objects. Subject: The Makassar "Zero Waste" community. Object of study: The implementation of ecological *dakwah* as an environmental preservation effort within the community.

Data Collection Techniques used in-depth interview on single subject and observation. Interview would be conducted with the founder of the Makassar "Zero Waste" community, Ainun Qalbi Muthmainnah, to gain insights into community activities, recruitment processes, partnerships, and other relevant information. The information of the observation would be collected through the analysis of social media posts and materials belonging to the "Zero Waste" community, focusing on content related to the research topic.

Results

Overview of the Makassar "Zero Waste" Community

The Makassar "Zero Waste" community was founded in November 2018 by two young women, Karimatul Fajriah and Ainun Qalbi Muthmainnah, who were then students at Alauddin State Islamic University (UIN) Makassar (Dalvin, 2021). Since its establishment, the community has engaged in various activities, including: providing guidance on reducing plastic waste destined for landfills by assisting the Family Empowerment and Welfare Movement Team (TP PKK) of Rappocini District, Makassar, in creating ecobricks.

The Zero Waste movement, championed by this community, stems from concerns regarding the unsustainable nature of human interaction with the environment. This includes practices such as the widespread consumption of single-use plastics, the "fast fashion" phenomenon that promotes impulse buying over need-based purchases, and the increasing reliance on instant food and drinks over home-cooked meals. These habits significantly contribute to the growing problem of individual waste generation.

The Makassar "Zero Waste" community advocates for mindful consumption and responsible waste management practices. Their vision and mission statement reflect this commitment with vision "To become a collaborator for all societal components in providing education, fostering a community that embraces a minimal waste lifestyle." Their missions are to establish cooperation with various

stakeholders, includes collaboration with government agencies, corporations, other communities, and the society; empower and educate the community, by providing information and resources related to adopting a minimal waste lifestyle; and provide a platform for volunteer self-actualization with the community aims to create opportunities for personal growth and development for its volunteers (Dalvin, 2021).

Ecological *Dakwah* of the Makassar "Zero Waste" Community

According to Sinambela and Mutiawati (2022), *dakwah* is grouped into three, namely *dakwah bil-lisan*, *dakwah bil-kitabah* and *dakwah bil-hal*. *Dakwah bil-lisan* is *dakwah* that is carried out verbally. This type of *dakwah* indeed had an age not young or very old, which is approximately as old as the age of humans today. Examples are lectures, preachings, sermons, and many more (Ismail, 2019). As for *dakwah bil-kitabah* is the implementation of *dakwah* through writing in various forms such as newspapers, magazines, articles, books, as well as in the form of novels (Rohman, 2020). *Dakwah bil-hal* is a type of *dakwah* that prioritizes approach prioritizes action and personal initiative, emphasizing the "action approach" or real-world implementation of teachings by the *Da'i* (Sagir, 2015).

To identify the ecological perspective of the *dakwah* model employed by the Makassar "Zero Waste" community, the researchers created a table comparing three *dakwah* methods.

Table 1. Framework for *Dakwah* Environmental Focus in the Makassar "Zero Waste" Community

No.	<i>Dakwah bil-lisan</i>	<i>Dakwah bil-kitabah</i>	<i>Dakwah bil-hal</i>
1.	Educate the community about the ability to sort and choose types of waste	Actively post messages promoting the virtues of protecting the environment	Make it a habit to carry personal cutlery on every occasions
2.	Serve as a speaker in environmental seminars, discussions, and other events	Develop a textual education model for children, youth, and mothers	Participate in clean-up events organized by various communities, government agencies, corporations, etc.
3.	Educate the adoption of a zero-waste lifestyle within the community		Initiate the "waste fasting" movement within the community
4.	Open to speech invitations of any researchers interested		Collaborate with other environmental care communities,

No.	<i>Dakwah bil-lisan</i>	<i>Dakwah bil-kitabah</i>	<i>Dakwah bil-hal</i>
	in studying the 'Zero Waste' community		such as "Mall Sampah" and "Octopus", to process waste into valuably economic

Discussion

The Concept of Ecological *Dakwah*

Fitriani and Aliyudin (2021) state the Quran contains numerous verses reminding and instructing us to protect or preserve nature. For instance, Surah Ar-Rum verse 41 can be interpreted as implying human-caused damage to the environment. Further emphasis on the prohibition of harming the earth is found in Surah Al-Araf verse 56. Additionally, Surah Al-Baqarah verse 205 establishes that Allah SWT dislikes those who cause damage. These verses collectively convey that preserving the nature is an obligatory duty for every individual. The Prophet Muhammad also exemplified a profound understanding and appreciation for the nature. In various instances, the Prophet expressed concern for the environment, including his famous statement regarding Mount Uhud: "*hadza jabalun yuhibbuna wa nuhibbuhu*", translating to: "This mountain (Uhud) loves us, and we love it." (Al-Bukhari, 1993).

The theme of environment plays a crucial role in human life, impacting our well-being and development in profound ways. Therefore, understanding and upholding ethical principles in environmental preservation becomes a moral imperative. In this context, Islamic educational institutions hold a significant responsibility by conveying the importance of environmental stewardship from a religious perspective. This approach can be particularly effective in fostering environmentally conscious communities.

Ecology is the study of the interactions between living organisms (plants, animals, etc.) and their habitat, including their physical surroundings and other living things. The term "ecology" comes from the Greek words "*oikos*" (house or place of life) and "*logos*" (science). Therefore, ecology can be understood as the science of living creatures and their abodes (Soemarwoto, 2004). The term "ecology" was first used by the German biologist, Ernst Haeckel in 1869. Since then, ecology has developed and expanded beyond biology to include other social sciences, such as religion (Soemarwoto, 2004). According to Amsyari (in Soemartono, 1991), ecology is defined as the science that studies the relationships between organisms, both with each other and with their environment. One of its main components is the interconnection is human relation, therefore the term of '**Human Ecology**' further developed to explore more about human connections to one another and human to their environment.

Ecology examines the interconnected relationships between living creatures (plants, animals, etc.) and their environment. This close relationship means environmental problems are inherently ecological in nature (Soemarwoto, 2004).

At the heart of these issues lies the delicate balance between living things, particularly humans, and their environment. Notably, the Quran refers to the environment or nature using the term "*Al-'alamir*", signifying the interconnected and interdependent web of life on earth. The primary goal of the ecological *dakwah* movement is to shift the paradigm of human relations with the nature, from a secular modernist perspective to one that integrates religious values. While modern humans often view nature as devoid of sacred meaning, ecological *dakwah* aims to cultivate a perspective that recognizes the presence of divine values within the natural world, without resorting to deifying nature itself (Fata, 2017).

This shift in perspective is also expected to transform the pattern of human-nature relations. At the previous life, modern humans used to treat nature exploitively as a commodity to maximize profits, however by ecological *dakwah*, this treatment is expected to shift towards a relationship imbued with ethical and aesthetic values. The urgency of this transformation is undeniable. The destruction of nature has reached a critical juncture, where further neglect is simply not an option. The recent ecological crisis, with its devastating natural disasters, serves as a stark reminder of the need for a new perspective and approach. Failure to implement a paradigm shift risks not just damaging the environment through our actions, but ultimately, leading to our own demise as a species, succumbing to the consequences of "nature's wrath" (Fata, 2017).

***Dakwah* of Makassar "Zero Waste" Community**

Basically, *dakwah* activities aim to foster understanding, awareness, appreciation, and practice of the values of religious teachings to *dakwah* targets both individually and institutionally, as *rahmatan lil alamin* (Nurdin, 2018). Islamic teachings contain many values that, if practiced fully by its adherents, will bring many benefits to individuals, other creatures, and the surrounding environment. Surah Al-A'raf/7: 58 explains that the land and plants grow fertile with the permission of Allah SWT. Of course, this is only achievable with active efforts from humans to maintain the environment properly and responsibly. Because Allah does emphasize that the damage on land and in the sea cannot be separated from human hands, as Allah has said in Surah Ar-Rum/30: 41.

The Makassar "Zero Waste" community actively provides counseling related to the ability to sort types of waste. This aims to ensure the waste management process runs effectively and efficiently. Waste management is the process of collecting, transporting, and disposing of waste in the most environmentally friendly way to limit or eliminate the harmful effects of waste (Bagui & Arellano, 2021). When society has knowledge of waste segregation, the waste collection process will be able to be completed quickly. The classification of organic and inorganic waste from the beginning simplifies transport to the landfill. This effort also helps those who want to recycle waste into items to be reused.

Another way the community practices *dakwah bil-lisan* is by being a resource person in seminar activities and discussions about environmental issues.

Conveying the "Zero Waste" lifestyle through seminars and discussions offers various important benefits for both individuals and society at a wider scope. These benefits include: 1) Education and awareness raising by conducting seminars and discussions that provides an opportunity to educate participants on the importance of reducing waste and its environmental impact, fostering a rethinking of consumption habits. 2) Exchange of ideas: Through discussions, participants are encouraged to share their experiences and strategies in implementing a "Zero Waste" lifestyle. This creates a space for shared learning and exchange of best practices, which lead to inspire and motivate others.

Seminars and discussions often serve as the foundation for building a community of like-minded individuals. This community fosters support, resource sharing, and motivation for its members to continue adopting and expanding "Zero Waste" practices. The community's formation aligns with the founder's vision, as it originated from a discussion activity where participants were tasked to form an environmentalist community. Environmental seminars can further influence change by increasing individual and group awareness and knowledge, empowering them at both local and broader levels. This empowerment can manifest as advocacy for environmentally friendly policies, waste reduction initiatives in workplaces, schools, and other settings (Pranata & Zibair, 2022).

Discussion activities often spark innovative ideas to address waste and sustainability challenges (Zaman & Newman, 2021), such as developing more sustainable products, more efficient recycling initiatives, or new waste management techniques (Chen & Ogunseitan, 2021). This is further strengthened by the involvement of diverse stakeholders, including government, businesses, NGOs, and the public society (Riali, 2020). This facilitates cross-sector collaboration in developing and implementing effective waste reduction strategies. The positive outcomes of seminars and discussions can be an important catalyst, encouraging more sustainable behavior change and reducing the environmental burden.

Dakwah bil-Hal conducted by the Makassar "Zero Waste" community exemplifies *dakwah bil-hal* through practices like reducing disposable goods, recycling, and composting. Their concrete lifestyle examples include bringing their own cutlery and promoting the "waste fasting" movement. Benefits of a Waste-Conscious Approach: 1) Reduced single-use waste: The most immediate benefit is the significant reduction in plastic and paper waste generated from disposable cutlery (Bagui & Arellano, 2021). This directly shrinks the volume of waste ending up in landfills or even worse, polluting the environment (Dina, Fillaeli & Jayanti, 2017). 2) Cost-effective: While an initial investment in reusable cutlery is necessary, it saves money in the long run as it eliminates the need to constantly buy disposable products (Krisnanda et al., 2023). 3) Enhanced hygiene: Properly cleaned and maintained personal cutlery ensures better hygiene compared to disposable options that might be stored or handled under questionable conditions. 4) Boosted Environmental Awareness: Bringing personal cutlery signifies a personal commitment to environmental protection, potentially inspiring others to adopt a similar sustainable lifestyle.

The Makassar "Zero Waste" community actively champions the "Waste Fasting" movement, highlighting several perceived benefits: 1) Reduced environmental

impact: By minimizing waste generation, this movement directly contributes to lower levels of soil, water, and air pollution (Zhao, Yang & Duan, 2022). It also helps cut greenhouse gas emissions associated with waste management. 2) Inspiring behavioral change (Zaman & Lehmann, 2011): Participating in a "waste fasting" allows individuals to gain awareness of their own waste result, encouraging them to seek more sustainable alternatives in their daily lives. 3) Promoting responsible consumption: It prompts individuals to critically assess their needs versus wants, encourages choosing products with recyclable or compostable packaging, and supports the purchase of environmentally friendly alternatives (Pranata & Zibair, 2022).

The two best practices described above not only provide direct benefits to the environment but also have a "ripple effect" that strengthens environmental awareness and action in the wider community. Through collective efforts, a "Zero Waste" lifestyle can significantly contribute to reducing the negative impacts of humans' current pattern of resource consumption often leads to environmental strain. Adopting Aa Gym's popular term, 3M: initiate from yourself, initiate from the small matter, and initiate from now.

Conclusion

The Makassar "Zero Waste" community employs various methods of "*dakwah*" (Islamic preaching) to promote a zero-waste lifestyle. These methods resonate with the three common models of *dakwah*: *dakwah bil-lisan* (verbal preaching). This involves educating the public through knowledge and understanding of waste segregation and selection. *Dakwah bil-kitabah* (written preaching). This takes the form of social media posts, primarily on Instagram, to convey the message. *Dakwah bil-hal* (action-oriented preaching): This method utilizes practical examples to inspire waste reduction behaviors. Examples include "fasting garbage" (presumably reducing waste generation) and routinely carrying reusable food containers outside the home for various activities, including school, work, and others.

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