Volume 3, Number 3, October 2026
e-ISSN: 3046-8221

WASTE MANAGEMENT POLICY ANALYSIS FROM AN ISLAMIC ECONOMICS PERSPECTIVE

Ayu Rakhmawati[1], Sarpini[2]

Department of Islamic Economics, Faculty of Islamic Economics and Business, State Islamic University Prof. K.H. Saifuddin Zuhri Purwokerto

[1]ayurakhma10@gmail.com[2]sarpini@uinsaizu.ac.id

KEYWORDS
islamic economics; waste-management policy; circular economy; maslahah; environmental sustainability

ABSTRACT

This article analyzes Indonesian waste-management policy from an Islamic economics perspective. It aims to identify the direction of waste policy, examine its relationship with Islamic economic principles, and formulate recommendations for more equitable and sustainable implementation. The study uses a qualitative narrative literature-review method. The sources consist of open-access scholarly articles published from 2022 to 2026 on circular economy, Islamic economics, environmental ethics, and waste governance, complemented by foundational Indonesian waste-management legislation. The selected literature was examined through thematic reading and comparison, focusing on policy orientation, allocation of responsibility, economic value, and Islamic ethical principles. The review indicates that waste management is increasingly discussed not only as a technical service but also as a governance and economic issue. Recent studies connect circular-economy practices—such as reducing, reusing, recycling, and recovering materials—with maslahah (public welfare), amanah (trust and responsibility), khalifah (human stewardship), and maqasid al-shari'ah. The literature also highlights persistent implementation challenges, including fragmented stakeholder participation, limited recycling and recovery capacity, and the need for clearer producer responsibility and viable markets for recovered materials. From an Islamic economics perspective, a sound policy should prevent wastefulness, distribute costs and benefits fairly, protect public health, and support responsible economic opportunities without assuming that all waste has commercial value. The article recommends stronger source reduction, accessible sorting systems, collaboration among government, businesses, and communities, and evaluation indicators covering environmental, social, and economic outcomes. Because the study relies on secondary sources, its findings are conceptual and should be tested through empirical studies in specific localities.

INTRODUCTION

Waste is one of the environmental issues that requires planned and sustainable management. Population growth, urban development, and changes in consumption patterns have increased the amount and variety of waste generated. If not managed properly, waste can cause environmental pollution, threaten public health, and damage ecosystem balance. Therefore, waste management should focus not only on collection and disposal, but also on reducing waste at its source and reusing materials that still have value (Sa'adah et al., 2026).

In Indonesia, waste management policy is regulated by Law No. 18 of 2008 on Waste Management. The regulation emphasizes the importance of waste reduction and handling in a systematic and sustainable manner. One approach applied is the reduce, reuse, and recycle (3R) principle, which includes reducing waste, reusing items that can still be used, and recycling materials. Nevertheless, the existence of regulations does not fully guarantee successful implementation. Sa'adah et al. (2026) identified several obstacles, such as low public awareness, limited facilities, and inadequate monitoring and coordination among stakeholders. Similarly, Nasution et al. (2025) explained that the implementation of integrated waste management policies still requires financial support, inter-institutional coordination, and greater public involvement.

Challenges in policy implementation can also be seen in household waste management, which still relies on collection, transportation, and final disposal. Research by Wakolle et al. (2026) in Sirimau District, Ambon City, found that waste sorting at the source and household waste reduction had not been carried out consistently. However, the study also identified several initiatives with potential for further development, such as community-based waste banks supported by digital technology, household waste sorting, organic waste composting, economic incentives, and environmental education that draws on local values. These findings indicate that the success of 3R policies depends not only on technology, but also on institutional support, community participation, appropriate incentives, and programs tailored to local conditions.

In addition to providing environmental benefits, waste management can also create economic opportunities for communities. The circular economy approach encourages the sustainable use of resources through the reuse and processing of materials that retain value. Sulistyowati et al. (2026) demonstrated the application of this approach through plastic waste management in Ngadimulyo Village, Pasuruan Regency, including the production of ecobricks, the processing of kitchen waste into compost, and the development of a village plastic waste bank. Meanwhile, Abidin and Wibisono (2026) explained that the Berseka Jaya Waste Bank in Tasikmalaya City contributes to community economic empowerment, the creation of a clean and healthy environment, and changes in how people handle waste. This indicates that waste management programs can be developed to reduce pollution while supporting community empowerment and the use of materials that retain economic value.

From an Islamic economics perspective, waste management can be examined through the principles of justice, responsibility, participation, and cooperation to achieve shared welfare. Abidin and Wibisono (2026) found that community empowerment through the Berseka Jaya Waste Bank reflects the values of justice, equality, participation, work ethic, and ta'awun, or mutual assistance. These principles help explain the importance of involving

various parties in obtaining the economic and environmental benefits of waste management. The principle of justice emphasizes opportunities for communities to participate and receive fair benefits, while ta'awun emphasizes cooperation among communities, waste bank managers, the government, and other relevant parties. A strong work ethic encourages consistency in reducing, sorting, and processing waste.

Although various waste management approaches have been developed, their implementation still faces several obstacles. Mukhlis (2024) identified limitations in infrastructure, low public awareness and participation, weak enforcement of regulations, and continued reliance on conventional waste management practices. The study emphasized the importance of improving facilities, educating the public, strengthening regulations, and involving various stakeholders. Wakolle et al. (2026) also stressed the need to connect waste bank activities with household waste sorting, the collection of sorted waste, organic waste processing, and the provision of incentives. Therefore, waste management policies should consider not only environmental objectives, but also equitable participation, cooperation among stakeholders, and community economic empowerment.

This research is important because the success of waste management policies should not be assessed solely in terms of environmental outcomes and technical implementation; it should also take social justice, community welfare, and responsibility in resource use into account. In this regard, Islamic economics offers an ethical perspective through the principles of maslahah (public welfare), amanah (trust and responsibility), justice, and cooperation. However, the relationship between the implementation of waste management policies, the application of the circular economy, and Islamic economic principles still needs to be examined comprehensively so that the resulting recommendations can address implementation challenges. Therefore, this study seeks to connect the analysis of waste management policy with Islamic economic principles, particularly responsibility, community participation, justice, and economic empowerment. This review is expected to provide insights and recommendations to support more effective, equitable, and sustainable waste management.

Based on this discussion, this study aims to analyze the implementation of waste management policies in Indonesia and the various challenges encountered. It also examines how Islamic economic principles, such as maslahah (public welfare), amanah (responsibility), al-'adl (justice), and ta'awun (cooperation), can be used to analyze the social and economic aspects of waste management. The study also seeks to formulate recommendations to strengthen fair and sustainable waste management policies by increasing community participation, developing the circular economy, and promoting cooperation among the government, communities, and other relevant parties. Thus, this study is expected to explain the importance of applying Islamic economic principles in supporting waste management policies that focus not only on environmental sustainability but also on community welfare.

RESEARCH METHOD

This study uses a literature review with a qualitative descriptive approach. The sources include scholarly articles discussing waste management, the circular economy, and Islamic economics, as well as legal documents related to waste management policy in Indonesia. The literature was collected on October 14, 2026, by searching journal websites and DOI records. The search used English keywords relevant to the research focus, such as "Islamic economics

and waste management," "circular economy and Islamic economics," "waste-management policy Indonesia," "maqasid al-shari'ah and sustainable waste management," and "environmental ethics and waste."

Table 1. Literature Search Results by Keyword

No.	Search Keywords	Initial Search Results	Number of Selected Articles
1.	Islamic economics and waste management	10 articles	2 articles
2.	circular economy and Islamic economics	35 articles	3 articles
3.	waste-management policy Indonesia	17 articles	9 articles
4.	maqasid al-shari'ah and sustainable waste management	14 articles	2 articles
5.	environmental ethics and waste	8 articles	2 articles

Based on Table 1, the literature search used five keywords related to Islamic economics and waste management. The initial search returned different numbers of articles for each keyword. The articles were then selected based on their relevance to the research focus, namely waste management policy from an Islamic economics perspective, circular economy principles, maqasid al-shari'ah, and environmental ethics in Islam. Relevant articles were subsequently examined as research data sources. This selection process aimed to obtain literature that supports the analysis of waste management policy based on Islamic economic principles.

The collected data were then analyzed using qualitative descriptive analysis. Information from the various literature sources was read, examined, and grouped into four main themes: the direction of waste management policy, the roles of stakeholders, the application of the circular economy, and Islamic economic principles. Information within each theme was then compared and connected to develop an understanding of waste management policy from an Islamic economics perspective.

RESULTS AND DISCUSSION

Direction of Waste Management Policy in Indonesia

The direction of waste management policy in Indonesia is fundamentally based on Law No. 18 of 2008 on Waste Management, which shifts the focus from the conventional collect-transport-dispose pattern toward preventing waste generation and using resources sustainably. According to Lutviana et al. (2025), this national policy is reinforced by targets for waste reduction and handling within a national strategic framework. However, implementation in various regions still faces serious challenges because household waste accounts for a large share of national waste generation, while annual waste reduction remains far below the target. Consistent with the findings of Rahmah et al. (2024), this indicates that the existence of formal regulations has not been fully matched by adequate infrastructure, sufficient operating budgets, or effective implementation at the local level.

In practice, the direction of waste management policy in Indonesia is also changing through the use of digital technology to improve governance transparency and service efficiency, and to broaden public participation. According to Indarto et al. (2025), national and regional digital platforms—such as the National Waste Management Information System (SIPSN), the Waste Bank Management Information System (SIMBA), and app-based public reporting channels—play an important role in providing integrated data and accelerating government responses to urban cleanliness issues. Nevertheless, policy evaluation using William N. Dunn's framework shows that digital waste management is still constrained by disparities in digital infrastructure between regions, limited human resource capacity, and inconsistent data quality and interoperability standards across regions. These issues limit the use of data in decision-making.

In addition to digitalization, policy development focuses on applying the Reduce, Reuse, Recycle (3R) principles in combination with the circular economy concept and community-based empowerment. Sulistyowati et al. (2026) reported that this approach can change public perceptions of waste from an environmental burden to an economically valuable resource through innovations such as ecobrick production, composting household kitchen waste, and making ecological bricks from ash left after waste incineration. These community-based initiatives not only help reduce the volume of waste sent to final processing sites, but also support the Sustainable Development Goals (SDGs) related to sustainable communities and responsible consumption and production.

Although various innovative programs have been developed, the effectiveness of waste management policy in Indonesia continues to face familiar barriers, particularly low public awareness and participation in sorting waste at its source. In terms of equity and efficiency, the distribution of processing facilities, such as 3R Waste Processing Sites (TPS 3R) and waste banks, remains uneven across regions. Heavy reliance on local government budgets also means that facilities that have been built may not operate optimally (Lutviana et al., 2025). Therefore, comparisons with international practices highlight the importance of strong regulations, integration of formal and informal systems, continuous public education, and enforcement of the Extended Producer Responsibility (EPR) principle, which requires producers to take responsibility for their products' material life cycles (Rahmah et al., 2024).

In addition, on-site waste management must take into account social conflict mitigation and occupational safety. As explained by Selviyani et al. (2024), this includes addressing odor pollution around final waste processing sites and securing transportation routes to maintain good relations between workers and local residents. Overall, the future direction of waste management policy needs to be strengthened through better data integration, standardized national indicators, greater local institutional capacity, and stronger cross-sector collaboration among government, the private sector, academics, and communities in order to achieve Indonesia's Clean Indonesia targets in a measurable and sustainable manner.

Challenges in Policy Implementation and the Role of Stakeholders

The implementation of waste management policy in Indonesia continues to face various challenges related to both resources and community involvement. In their study of waste management policy implementation in Antasari Urban Village, Hulu Sungai Utara Regency,

Anggraini, Affrian, and Hidayatullah discuss the importance of resource and facility support for policy implementation. This indicates that regulations alone are not enough to ensure successful waste management. Policies need to be supported by implementing personnel, adequate facilities, and effective coordination so that they can be carried out in accordance with their intended objectives.

Another challenge is the suboptimal level of public participation in waste sorting. Adilla and Maulana (2026), in their study in Cilegon City, found that community involvement is influenced by public outreach, guidance, facility availability, and support from the social environment. These findings indicate that public awareness needs to be accompanied by assistance and convenient ways to manage waste. Therefore, the government should not only organize waste management programs but also encourage changes in public habits through ongoing education. Household participation is important because sorting waste at an early stage can support subsequent processing.

One initiative that involves communities while also providing economic benefits is the waste bank. Aulia et al. (2025), in their study of the Patriot Main Waste Bank in Bekasi City, explained that waste bank activities can connect waste reduction with increased economic value from materials that can still be used. By sorting and collecting waste with resale value, communities can gain economic benefits while contributing to waste reduction. However, the sustainability of waste bank activities requires good management, guidance, and cooperation among the government, communities, and the private sector. This support is needed to ensure that waste collection and reuse activities continue consistently.

Based on these three studies, the success of waste management policy depends not only on the government but also on community involvement and support from other parties. The government is responsible for providing facilities, offering guidance, and monitoring policy implementation, while communities are responsible for reducing and sorting waste and participating in environmental management programs. From an Islamic economics perspective, this cooperation can be linked to the principles of amanah and maslahah. Amanah emphasizes the importance of fulfilling responsibilities, while maslahah refers to efforts to generate benefits and reduce harm to society. Thus, waste management supported by shared responsibility can help create a cleaner and more sustainable environment.

Analysis of Waste Management Policy from an Islamic Perspective

Waste management from an Islamic economics perspective is related to the principles of public welfare, human responsibility, wise resource use, and social justice. Abdillah et al. (2026) explain that properly managed waste can provide economic benefits through the sale of inorganic waste and the processing of organic waste into compost. These activities not only help reduce environmental pollution but also provide opportunities for additional income for communities. This shows that waste management policy is consistent with the principle of maslahah, which aims to create benefits and reduce harm to people's lives.

In addition, the principles of amanah and khalifah emphasize that humans have a responsibility to protect the environment. Soviana et al. (2026) show that environmental awareness can be developed through habitual practices, such as reducing paper use, using

reusable drinking bottles, and keeping the environment clean. These findings indicate that applying Islamic values to waste management needs to be supported by concrete actions and sustainable habits, both among communities and relevant institutions.

In Islamic economics, the prohibition of israf and tabdzir is also relevant to reducing waste caused by excessive consumption and the wasteful use of resources. Anami and Khalilah (2025) connect Islamic economic principles with the circular economy, which involves reusing materials that retain value instead of immediately turning them into waste. This approach can be applied through waste sorting, reuse, and recycling. These efforts are also consistent with maqasid al-shari'ah, particularly the protection of life and wealth, because a clean environment supports public health, while waste recovery can preserve economic value.

On the other hand, the principle of justice, al-'adl, emphasizes that the benefits of waste management should be widely shared throughout society. Using waste as an economic resource can create income and business opportunities, allowing communities not only to help reduce pollution but also to benefit from these activities. Therefore, waste management policy needs to be supported by adequate facilities, continuous education, and community participation. By integrating these Islamic economic values, waste management is expected to create a cleaner environment while sustainably improving community welfare.

Recommendations for Fair and Sustainable Waste Management Policy

Fair and sustainable waste management policy should focus on reducing waste at its source, increasing public awareness, and providing adequate processing facilities. Darmin et al. (2026) show that community-based waste management can be strengthened through education, training, and the use of appropriate technology. Therefore, the government should support household waste-sorting programs, provide processing facilities suited to community needs, and offer continuous guidance so that waste management can operate independently.

In addition, the use of waste through recycling activities and waste banks should be developed to reduce pollution while providing economic value to communities. Abdillah et al. (2026) explain that sorted waste can be reused, either by selling valuable inorganic materials or by processing organic waste into compost. This can be an alternative way to increase the economic benefits of waste while encouraging community involvement in environmental protection. To distribute benefits more equitably, waste management programs should involve different groups in society and provide opportunities to participate without unfairly burdening any particular group.

From an Islamic perspective, waste management policy should also be based on the principles of maslahah, amanah, and al-'adl, or justice. These principles emphasize protecting the common good, taking responsibility for the environment, and ensuring that the benefits and responsibilities of waste management are distributed proportionately. The circular economy concept discussed by Anami and Khalilah (2025) can provide a basis for encouraging more responsible resource use and reducing excessive behavior (israf). Therefore, collaboration among the government, communities, educational institutions, and businesses needs to be strengthened through education, supporting facilities, and regular monitoring and evaluation so that waste management policy can be implemented effectively and sustainably.

CONCLUSION

This study concludes that waste management policy in Indonesia has a legal basis for reducing and handling waste, particularly through Law No. 18 of 2008 and the application of the reduce, reuse, and recycle (3R) principles. However, implementation still faces various challenges, including limited facilities and infrastructure, uneven access to waste banks and processing facilities, low public participation in waste sorting, and coordination and funding constraints. Digital systems and community-based initiatives offer opportunities to improve monitoring, participation, and the reuse of waste materials. However, their effectiveness depends on regional capacity and sustained institutional support.

From an Islamic economics perspective, waste management is not merely a technical or economic activity, but also a shared ethical responsibility. The principles of maslahah (public welfare), amanah (responsibility), al-'adl (justice), and ta'awun (cooperation), as well as avoiding israf (excess) and tabdzir (wastefulness), can serve as a foundation for policies that protect public interests, distribute benefits and responsibilities fairly, and encourage responsible resource use. Circular economy practices and waste bank programs can support these goals if they are accessible, well managed, and adapted to local community needs. Since this study uses secondary sources, its conclusions describe conceptual patterns based on the literature reviewed and should not be regarded as direct measurements of policy effectiveness in every region.

RECOMMENDATIONS

Based on the findings, central and local governments should strengthen efforts to reduce waste at its source, expand access to convenient waste sorting and processing facilities, improve inter-agency coordination, and monitor policy implementation using clear environmental, social, and economic indicators. Public education should be carried out continuously and adapted to local conditions. Producers and businesses should also be encouraged and required, in accordance with applicable regulations, to take greater responsibility for product packaging and the waste generated throughout the product life cycle.

Communities, educational institutions, and waste bank managers should cooperate in developing practical programs for waste sorting, reuse, composting, and recycling. The economic benefits of recovered waste materials should be distributed fairly, while recognizing that not all waste has market value and that safe handling and environmental protection must remain priorities. Future research is recommended to conduct field studies in specific regions to assess policy implementation, community participation, the distribution of benefits, and the extent to which Islamic economic principles are applied in waste management practices.

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