

# The Role of Local Government in Environmental Policy Implementation: A Case Study in Jakarta, Bandung and Surabaya

Siti Widharetno Mursalim<sup>1\*</sup>, Zia Kemala<sup>2</sup>

{sitiwidharetno@poltek.stialanbandung.ac.id}

Politeknik STIA LAN Bandung, Bandung, Indonesia<sup>1</sup>  
Sekolah Tinggi Ilmu Ekonomi Pariwisata YAPARI, Indonesia<sup>2</sup>

**Abstract.** Increasing environmental challenges in Indonesia's big cities, such as Jakarta, Surabaya and Bandung, caused by urbanization, industrialization and climate change. Local governments have an important role in implementing effective environmental policies to face these challenges. However, policy implementation at the regional level often faces various obstacles, such as limited resources, lack of community participation, and economic pressure. The aim of this research is to analyze the role of local governments in implementing environmental policies and identify inhibiting and supporting factors that influence their success. The research method used is Systematic Literature Review (SLR) by collecting, evaluating and synthesizing relevant literature regarding environmental policy at the regional level in Indonesia. The research results show that there are different approaches in each city in dealing with environmental issues, where Jakarta tends to apply a top-down approach, Surabaya focuses on a community-based approach, and Bandung relies on environmental revitalization and cross-sector collaboration. Factors supporting successful policy implementation include local government commitment, public awareness, and technological support. Meanwhile, inhibiting factors include budget limitations, lack of coordination between agencies, and economic pressure.

**Keywords:** Role of Regional Government, Environmental Policy, Policy Implementation.

## 1 Introduction

Local governments play a crucial role in environmental management in Indonesia. As entities closer to the community, they are responsible for implementing effective environmental policies to protect natural resources and maintain the quality of life for residents [1]. In recent decades, Indonesia has faced various environmental challenges, such as air pollution, deforestation, water contamination, and soil degradation. Although numerous policies and regulations have been implemented at the national level, local-level implementation is essential for ensuring these policies' effectiveness.

Many cities in Indonesia face increasingly complex environmental conditions due to rapid economic growth and urbanization. Major cities like Jakarta, Surabaya, and Bandung have experienced significant increases in air pollution, deteriorating water quality, and waste management issues. This situation requires local governments not only to rely on central policies but also to develop specific local strategies to address these issues.

Environmental policy implementation at the regional level often faces various challenges. One major issue is the limited human and financial resources available to local governments. Additionally, coordination between various stakeholders—such as government agencies, the private sector, and the public—often falls short [2]. This lack of coordination results in many centrally designed policies being ineffective or even unimplemented at the local level. Furthermore, the limited understanding of environmental issues among local officials can also be a significant barrier to policy execution. Low public awareness of the importance of environmental preservation is another factor impeding the success of environmental policy implementation at the regional level. Insufficient outreach and low public participation in environmental programs often mean that planned policies have little impact on improving environmental quality [3]. This indicates that the role of local government goes beyond regulation, extending to facilitating and motivating environmental awareness among the public.

According to data released by the Central Bureau of Statistics (BPS), several cities in Indonesia continue to face major challenges in maintaining environmental quality. In Jakarta, air pollution levels have reached hazardous categories on several occasions throughout the year, while Surabaya is dealing with waste management issues and deteriorating river water quality. Bandung also faces problems with industrial waste polluting its main rivers. These facts indicate that, despite clear regulations, local-level implementation still requires more serious attention and action [4].

Indonesia's environmental policies are underpinned by a strong legal foundation, from the Environmental Law to more specific regional regulations. However, the success of these policies' implementation heavily relies on the commitment and capacity of local governments. Local governments' roles include supervision, law enforcement, and providing incentives to businesses and communities that contribute to environmental preservation [5]. In several cities, local governments have initiated programs such as waste banks, urban greening, and air pollution control. However, the effectiveness of these programs varies greatly, depending on community participation and support from various stakeholders.

Local governments are also responsible for integrating environmental policies with regional development plans. This means that every development project must consider sustainability aspects and its environmental impact. Many cities in Indonesia have begun to adopt sustainable development concepts, but implementation is often hindered by short-term economic interests that conflict with sustainability principles. Therefore, the role of local government in mediating and balancing economic and environmental interests is crucial.

This study aims to analyze the role of local governments in implementing environmental policies in several cities in Indonesia, focusing on factors that support and hinder the success of policy implementation. Through in-depth case studies, this research is expected to provide constructive recommendations for enhancing local governments' capabilities in managing environmental issues more effectively and sustainably.

## **2 Research Method**

This study uses a qualitative approach with the Systematic Literature Review (SLR) method to understand the role of local governments in environmental policy implementation across several cities in Indonesia. SLR was chosen to identify, evaluate, and synthesize relevant literature regarding environmental policies that have been implemented at the regional level [6]. This method involves a systematic search of literature across various academic databases,

scientific journals, and government policy reports, focusing on studies that examine the role of local governments in environmental management. Inclusion and exclusion criteria were established to ensure that only highly relevant and scientifically robust sources were included in the analysis [6].

Data analysis was conducted using a thematic analysis approach, organizing and classifying relevant findings based on key themes related to local government environmental policy implementation. These findings were then synthesized to identify common patterns, frequent challenges, and supporting factors influencing the effectiveness of local-level policies. The analysis process was conducted in-depth and iteratively to ensure accurate interpretation and conclusions [7]. The results of this SLR are expected to provide a comprehensive understanding of the conditions of environmental policy implementation in several Indonesian cities and to offer constructive recommendations for the development of more effective policies.

### **3 Results**

This study identifies several common patterns in the role of local governments in implementing environmental policies across various cities in Indonesia. One key finding is that the commitment of local governments varies significantly, depending on factors such as financial capacity, available human resources, and local political support [3]. In some cities, there is a strong commitment from local governments to implement sustainable environmental policies, especially in areas with high levels of environmental awareness and significant pressure from civil society. On the other hand, cities with limited budgets and resources often face challenges in effectively implementing environmental programs, even when policies align with local needs.

Another finding indicates that interagency coordination at the local level remains a significant challenge. Local governments often struggle to align environmental policies with policies from other sectors, such as economic development, transportation, and housing [8]. In some cases, environmental policies are overlooked due to the perceived urgency of economic development priorities. This leads to fragmented, unintegrated policies, preventing the expected positive impact of environmental policies from being fully realized. Therefore, stronger efforts are needed to integrate cross-sectoral policies at the local level to achieve sustainability goals.

The study also reveals that public participation plays an important role in the success of environmental policy implementation. In cities where the community actively participates in monitoring and implementing environmental programs, the outcomes tend to be more positive [9]. Local governments that build strong relationships with local communities can mobilize community support and resources for environmental programs, such as waste management, urban greening, and water conservation. Conversely, in areas with low community involvement, programs often fall short due to lack of public support. This highlights the importance of participatory and inclusive approaches in creating effective and sustainable environmental policies.

The study finds that incentive policies play a key role in encouraging compliance with environmental regulations. Some local governments have developed incentive mechanisms, such as environmental awards, tax reductions, or technical support for businesses that adopt environmentally friendly practices [5]. These policies have proven effective in increasing private sector compliance and participation in environmental conservation. However, incentives must be tailored to local economic conditions to avoid straining limited local government

budgets. This finding suggests that incentives can be an effective strategy for addressing various environmental challenges if implemented proportionally and sustainably.

The study also shows that environmental monitoring and law enforcement at the local level still need improvement. One frequent issue is weak enforcement of environmental violations, especially in areas with strong political influence or where environmental monitoring is not a priority. Many cities struggle to address this issue due to limited supervisory personnel and insufficient legal capacity [10]. This situation prevents environmental policies from being fully implemented on the ground. Thus, reforms in the monitoring and enforcement system are necessary to ensure compliance with established regulations through stricter and more transparent measures.

Local governments that successfully implement effective environmental policies often have visionary leadership capable of inspiring collective action at the local level. Several regional leaders focused on environmental issues have successfully promoted innovative policies, such as renewable energy initiatives, green urban parks, and environmental awareness campaigns involving various stakeholders [1]. This strong leadership has proven to be a catalyst for positive changes in environmental management. In other regions, however, a lack of visionary leadership has led to environmental programs receiving insufficient attention and remaining secondary projects in regional development agendas [11].

This study focuses on the implementation of environmental policies in three major cities in Indonesia: Jakarta, Surabaya, and Bandung. In Jakarta, as the national capital and center of government, environmental issues are a primary concern due to the high rates of urbanization and industrialization. One major issue is air pollution, which frequently reaches hazardous levels, especially during the dry season. The Jakarta Provincial Government has taken several important steps, such as implementing an odd-even vehicle policy to reduce congestion and air pollution and conducting greening campaigns by adding green open spaces [12]. Although these policies show some progress, the main challenges still relate to rule enforcement and public awareness. Jakarta also continues to develop a more environmentally friendly public transportation system, such as the MRT and LRT, but these efforts require sustained support to effectively reduce carbon emissions in urban areas.

In Surabaya, efforts to implement environmental policies have become a notable example at the national level. The Surabaya City Government is known for various creative initiatives in environmental management, such as community-based waste management through the waste bank program. Surabaya also leads in implementing urban greening programs by adding green parks and promoting tree planting [13]. The Surabaya government strongly emphasizes a participatory approach by involving residents in various environmental programs, ranging from waste management to environmental preservation education. These programs have successfully raised public awareness of the importance of environmental preservation, although challenges remain with industrial waste management and water pollution, requiring stricter government oversight.

Bandung, as a major educational and tourism hub in Indonesia, also faces complex environmental challenges. Rapid population growth and urbanization have led to increased waste production and water pollution, especially in main rivers like the Citarum River. The Bandung City Government has launched several initiatives to improve environmental quality, such as river revitalization programs and urban greening [14]. However, one of the biggest obstacles in Bandung is interagency coordination and consistency in law enforcement. Environmental projects are often disrupted by economic interests and pressure from parties prioritizing physical development without considering environmental impact. This highlights

the need for strong leadership and consistent policies to maintain a commitment to environmental preservation in Bandung.

These three cities demonstrate varied approaches to environmental policy implementation, heavily influenced by the social, economic, and political contexts of each region. Jakarta tends to rely on large-scale policies led by the provincial government, while Surabaya shows that a community-based approach can yield significant results. In contrast, Bandung faces challenges in balancing economic development with environmental preservation. Despite the differences in approaches, this study shows that successful environmental policy implementation in these three cities depends greatly on local government commitment, community support, and institutional capacity in managing complex environmental issues. This conclusion underscores the importance of flexible and collaborative environmental policy adaptation according to each city's characteristics.

In conclusion, this study highlights that the role of local governments in implementing environmental policies in Indonesia is complex and influenced by various internal and external factors. Common patterns identified include the importance of local government commitment, cross-sector policy integration, community participation, appropriate use of incentives, and effective monitoring and law enforcement. This study's findings show that without synergy between these elements, local-level environmental policies will struggle to achieve their desired objectives. Therefore, comprehensive and adaptive policy strategies are needed to enhance the effectiveness of local governments in managing environmental issues in Indonesia.

### **3.1 Differences in Environmental Policy Implementation Approaches in Jakarta, Surabaya, and Bandung**

Environmental policy is a complex issue in Indonesia, especially in large cities facing pressures from urbanization, industrialization, and climate change. This study examines the differences in environmental policy implementation approaches in three major Indonesian cities: Jakarta, Surabaya, and Bandung. Each city has unique characteristics and faces distinct challenges in environmental management, which influence how they formulate and implement environmental policies. Below is an in-depth discussion of the different approaches in these cities.

#### ***3.1.1 Jakarta (Centralized Top-Down Approach)***

As the nation's capital and administrative center, Jakarta faces very complex environmental challenges. With a population of over 10 million, Jakarta encounters issues like air pollution, flooding, poor water quality, and complicated waste management. To address these issues, the Jakarta Provincial Government tends to use a centralized, top-down approach. This approach is reflected in various environmental policies, such as implementing the odd-even vehicle system to reduce traffic congestion, developing environmentally friendly mass transportation systems like MRT and LRT, and river revitalization projects aimed at reducing flood risk (Santi Indra Astuti & Juli R. Binu, 2022).

The top-down approach allows the provincial government to make quick decisions and implement large-scale policies with substantial budget support. A notable example is the implementation of an "air pollution roadmap" integrated with public transportation development

plans. Projects like the MRT and LRT are expected to not only reduce traffic congestion but also curb carbon emissions, which are a major cause of air quality decline in Jakarta [15]. Additionally, the government has initiated various greening campaigns, increasing green open spaces (RTH) across the city as part of pollution control and climate change mitigation efforts.

However, this centralized approach has some weaknesses, such as the lack of community involvement in the planning and implementation of environmental policies. Many government-initiated programs lack full public support due to limited communication and socialization regarding the long-term benefits of these policies. As a result, good policies often fail to be effective due to low participation and support from local communities. Thus, more inclusive strategies are needed to engage the community in environmental decision-making processes in Jakarta.

### ***3.1.2 Surabaya (Participatory Community-Based Approach)***

As Indonesia's second-largest city, Surabaya faces different environmental challenges compared to Jakarta. Although it has a smaller population, Surabaya also struggles with issues like air pollution, waste management, and water pollution. However, the Surabaya City Government adopts a very different approach to addressing environmental issues, focusing on community participation [16]. This community-based approach has become a hallmark of Surabaya, where various environmental programs involve residents directly in the management process.

One successful example of Surabaya's participatory approach is the "waste bank" program, which enables residents to sort household waste and exchange it for certain incentives. Besides helping to reduce waste entering landfills, this program also raises public awareness of sustainable waste management. Another notable program involves tree planting and urban park development, inviting the public to participate in greening their own environment [17]. The Surabaya City Government awards individuals or communities actively involved in greening efforts, promoting broader involvement across various social groups.

This community-based approach excels in long-term sustainability, as it directly involves residents. Active participation fosters a sense of ownership over existing environmental programs, making residents more responsible for maintaining achieved outcomes. However, a key challenge with this approach is the consistency and continuity of community involvement. Not all programs can sustain residents' enthusiasm over the long term, especially without adequate incentives or if the benefits are not immediately apparent. Therefore, it is crucial for local governments to continually seek ways to motivate and support community engagement in sustainable environmental programs.

### ***3.1.3 Bandung (Environmental Revitalization and Cross-Sector Collaboration Approach)***

Bandung, a major tourism and education hub, faces different environmental challenges than Jakarta and Surabaya. The main issues in Bandung include water pollution, particularly in major rivers like the Citarum, and worsening air pollution due to an increase in motor vehicles [18]. The Bandung City Government tends to adopt an approach that combines environmental

revitalization and cross-sector collaboration. This is evident in various river revitalization projects and initiatives to expand green open spaces within the city.

A prominent policy example is the "Citarum Harum" program, which aims to clean up the Citarum River from industrial and domestic waste. This program involves various stakeholders, including the central government, local government, the military, the community, and NGOs. Cross-sector collaboration is viewed as an effective measure to address Bandung's complex environmental challenges, where many stakeholders have different interests. Additionally, the Bandung City Government has initiated various urban greening programs to improve air quality, such as the "Bandung Menanam" campaign, which encourages residents to plant trees in open areas [19].

The main obstacles in this collaborative approach are inconsistencies in regulation enforcement and oversight. Some multi-stakeholder projects sometimes do not run smoothly due to a lack of effective coordination and communication among stakeholders. Additionally, economic pressures from the industrial and property sectors often obstruct strict environmental policy implementation. These challenges indicate that, although cross-sector collaboration can be an effective solution, strong leadership and consistent policies are necessary to ensure that all stakeholders commit to a shared goal of environmental protection.

### **3.2 Comparing the Approaches of Jakarta, Surabaya, and Bandung**

The differences in approaches between Jakarta, Surabaya, and Bandung are influenced by various factors, including geographic characteristics, socio-economic conditions, and local political priorities. In Jakarta, the top-down approach is dominant due to its role as the governmental and business center, necessitating quick decision-making based on large-scale public policies. This allows Jakarta to respond swiftly to environmental issues, although often at the expense of public participation, which could strengthen policy effectiveness. On the other hand, Surabaya has demonstrated that a community-based approach can significantly impact the sustainability of environmental programs. Direct public involvement in various programs indicates that environmental responsibility extends beyond government to become part of collective public awareness. High community participation in Surabaya is also supported by good communication between the city government and residents, along with incentives that make residents feel actively involved in preserving their environment.

Bandung's approach of environmental revitalization and cross-sector collaboration emphasizes the importance of policy integration across fields to address complex environmental challenges. Success in several revitalization projects demonstrates that involving various stakeholders can offer effective solutions if managed well. However, coordination and regulatory consistency remain obstacles to overcome. Bandung's experience suggests that, in addition to political commitment, support from all sectors—government, community, and businesses—is essential to achieve a healthier environment.

## **4 Discussions**

An analysis of Jakarta, Surabaya, and Bandung shows that there is no single approach that is most effective for tackling environmental issues. Each city has different contexts and challenges, so the approach used must align with local characteristics. Jakarta's top-down

approach enables rapid decision-making but requires stronger public participation for long-term sustainability. Surabaya shows that community participation is key to environmental policy success, but it requires consistent support to maintain residents' enthusiasm. Meanwhile, Bandung illustrates the importance of cross-sector collaboration, although consistency and enforcement remain challenges to address. Going forward, environmental policies in Indonesia, especially in major cities, need to adopt more adaptive and inclusive approaches. Combining government initiatives, community participation, and cross-sector collaboration may be the most ideal solution for addressing increasingly complex environmental challenges. This adaptive policy approach should respond flexibly to changing environmental, social, and economic conditions and be supported by visionary leadership and consistent policies at all levels of government. Thus, environmental preservation efforts can be more effective and have a positive impact on overall community welfare.

#### **4.1 Inhibiting and Supporting Factors in the Implementation of Environmental Policies at the Regional Level**

The implementation of environmental policies at the local level in Indonesia is a complex challenge, given the vast area and diverse social, economic, and cultural characteristics in each region. This research focuses on the inhibiting and supporting factors that influence the effectiveness of environmental policy implementation in various regions, especially in major cities such as Jakarta, Surabaya, and Bandung. Each city faces unique challenges; however, some common patterns can be identified regarding the obstacles and supporting factors affecting the success of environmental policies at the local level. Below is an in-depth analysis of these factors.

One of the biggest obstacles to implementing environmental policies at the local level is the limitation of resources, both human and financial. Many local governments, especially in smaller cities or those with limited budgets, face difficulties in allocating sufficient funds for environmental programs. Available funds are often allocated more to needs deemed more urgent, such as road infrastructure, healthcare, and education, resulting in environmental program budgets being marginalized. Additionally, the lack of environmental expertise also poses a constraint. Not all regions have trained staff to handle environmental issues professionally, limiting local governments' capacity to implement environmental policies. Infrastructure limitations also hinder the execution of environmental policies. In some regions, adequate waste processing facilities are not available, making waste management ineffective. This impacts environmental quality, particularly in densely populated urban areas. Furthermore, supporting infrastructure such as environmentally friendly public transportation and green open spaces is often still inadequate. The absence of infrastructure that supports environmental policies makes efforts to reduce air pollution, manage waste, and conserve water challenging to realize.

A lack of awareness and community participation in environmental programs often hinders the success of policies at the local level. Many people still view environmental issues as solely the responsibility of the government, unaware that individual and community behavior significantly impacts environmental conditions. Low education levels and understanding of environmental issues in some areas also contribute to community apathy towards programs launched by local governments. Ineffective socialization from the government about the importance of environmental protection further leads to minimal citizen participation in various



programs, such as greening initiatives, waste management, and water conservation. However, in areas with higher environmental awareness, community participation becomes a strong supporting factor. For instance, in cities like Surabaya, community-based programs such as waste banks and city greening campaigns have successfully mobilized active citizen participation. High community awareness makes them more willing to engage in environmental protection, both through participation in government programs and independent initiatives. This factor shows that effective education and socialization can raise community awareness and be key to the successful implementation of environmental policies.

Coordination between agencies at the local level is one of the main challenges in implementing environmental policies. Many environmental programs require cross-sector cooperation, such as collaboration between the environmental agency, the transportation department, the public works department, and the health department. However, this inter-agency coordination often does not function effectively due to differing priorities, lack of communication, or even conflicts of interest among agencies. As a result, policies that should be implemented in an integrated manner are hindered by a lack of coordination.

In some regions, the misalignment between central and local government policies also acts as an obstacle. Environmental policies established at the central level are not always relevant or suitable for the specific conditions at the local level, resulting in ineffective implementation. For example, national regulations on industrial waste management may not align with the oversight capacity of local governments, especially in areas with limited resources. This indicates that better communication and coordination between central and local governments are crucial to ensure that environmental policies can be effectively implemented.

Economic pressures often act as a barrier to the implementation of environmental policies at the local level. Many local governments are more focused on short-term economic development, particularly to attract investment and increase local revenue. This economic development priority often conflicts with environmental preservation goals, especially when investments in industry or property are considered more profitable than environmental conservation efforts. There are many cases where physical development, such as road construction, shopping centers, and housing, occurs without considering its impact on the environment, such as the reduction of green open space and increased pollution emissions. Additionally, in some regions, political interests often become an obstructive factor. Environmental policies that are unpopular or deemed economically detrimental may be ignored or relaxed to maintain political stability or attract support from certain parties. Pressure from interest groups, whether from the industrial sector or developers, often influences decision-making at the local level, leading to the inadequate implementation of otherwise sound environmental policies.

Visionary leadership at the local level can be a highly significant supporting factor in implementing environmental policies. Regional leaders with a strong commitment to environmental issues are often able to drive real change, even with limited resources. In several cities, leaders with a clear vision for environmental preservation have been able to push for innovative and sustainable policy initiatives, such as the development of environmentally friendly transportation, the revitalization of slum areas, and the enhancement of green open spaces. Visionary leadership can also foster good communication with the community and various stakeholders, thereby strengthening support for environmental policies.

Concrete examples of visionary leadership can be found in cities like Surabaya, where the mayor's commitment to environmental preservation has successfully mobilized community-based environmental programs. Moreover, strong leadership also enables the creation of appropriate incentive policies to support environmentally friendly businesses, making policies

not only coercive but also rewarding to those contributing positively to environmental conservation.

Clear and firm regulations are one of the main supporting factors in the implementation of environmental policies at the local level. Regions with strong and specific local regulations (Perda) related to environmental issues tend to be more successful in implementing sustainable policies. For instance, several cities have enacted stringent regulations regarding waste management, bans on single-use plastics, and the utilization of renewable energy. Policies supported by strict penalties for environmental violations have also proven effective in enhancing compliance and awareness among the community and industry players regarding the importance of environmental protection.

The strength of these regulations also heavily relies on the effectiveness of law enforcement. In many areas, despite clear regulations, law enforcement against environmental violations remains weak. This is often due to a lack of monitoring personnel, insufficient legal capacity, or even pressure from parties with economic interests. Therefore, consistent and transparent law enforcement is key to ensuring that environmental regulations are implemented as expected.

The use of technology in the environmental sector has helped some regions improve the efficiency and effectiveness of environmental policies. Modern waste processing technologies, such as environmentally friendly incinerators and automated recycling facilities, enable more effective waste management. Furthermore, digital innovations like community reporting applications also support transparency and citizen participation in environmental protection. Some regions have even begun adopting smart city concepts to monitor air quality, energy management, and flood mitigation, all based on real-time data. These technologies and innovations demonstrate significant potential to support the implementation of environmental policies in the future. However, the main challenge remains the capacity of regions to adopt and maintain such technologies. High initial investments and a lack of skilled human resources in technology often pose obstacles. Therefore, training, funding, and support from the central government and the private sector are necessary to ensure that technology can be optimally utilized for environmental protection at the local level.

## **5 Conclusions**

This research highlights the importance of the role of local governments in implementing environmental policies in Indonesia, particularly in major cities like Jakarta, Surabaya, and Bandung. Each city has a different approach to managing environmental issues, influenced by its geographical, socio-economic conditions, and institutional capacity. Jakarta, with its top-down approach, demonstrates that large-scale policies supported by adequate resources can yield rapid impacts, but often face challenges regarding community participation. On the other hand, Surabaya, which emphasizes a community-based approach, shows that local community involvement can be key to successful environmental preservation. Meanwhile, Bandung, with its approach of environmental revitalization and cross-sector collaboration, underscores the importance of synergy among various stakeholders in addressing complex environmental challenges.

From this research, it can be concluded that there is no one-size-fits-all approach to managing environmental policies at the local level. The success of implementation greatly depends on how local governments can adapt policies to the local context, build good

communication with the community, and ensure synergy among various sectors. Clear policy support, visionary leadership, strong community participation, and appropriate technology adoption are key factors in achieving sustainable environmental preservation goals. Therefore, local governments throughout Indonesia need to continuously develop adaptive and collaborative strategies, so that efforts to protect the environment can be more effective and provide long-term benefits for community welfare and the preservation of nature.

## References

- [1] H. P. Minang, "Pelaksanaan Kebijakan Alokasi Dana Desa Dalam Memperdayakan Masyarakat Desa : Studi Kasus Desa Caturtunggal Kecamatan Depok Kabupaten Sleman," *Ilmu dan Budaya*, vol. 42, no. 1, pp. 399–405, 2021.
- [2] R. Mulyawan, "Kajian Peran Stakeholder Pada Implementasi Kebijakan Pengelolaan DAS Terpadu, Studi Kasus DAS Krueng Aceh," *J. Ilmu Lingkung.*, vol. 20, no. 2, pp. 198–209, 2022.
- [3] B. Setiawan and H. Nurcahyanto, "Analisis Peran Stakeholders dalam Implementasi Kebijakan Penanggulangan Angka Kematian Ibu Studi Kasus Kecamatan Pedurungan Kota Semarang," *J. Public Policy Manag. Rev.*, vol. 9, no. 2, pp. 127–144, 2020, [Online]. Available: <https://ejournal3.undip.ac.id/index.php/jppmr/article/view/27351>
- [4] A. A. Wahyudi, Y. R. Widowati, and A. A. Nugroho, "Strategi Implementasi Smart City Kota Bandung," *J. Good Gov.*, 2022, doi: 10.32834/gg.v18i1.460.
- [5] P. Puryanti, D. Herdiana, and T. Darmayanti, "Implementasi Kebijakan Pengelolaan Dana Bantuan Sosial Tunai (Bst) Covid-19 (Studi Kasus Di Kelurahan Bandarysah Kabupaten Natuna)," *JISIP (Jurnal Ilmu Sos. dan Pendidikan)*, vol. 6, no. 2, pp. 3878–3889, 2022, doi: 10.58258/jisip.v6i2.3022.
- [6] P. D. Sugiyono, *Buku sugiyono, metode penelitian kuantitatif kualitatif*, vol. 5, no. 1. 2019.
- [7] J. W. Creswell and J. D. Creswell, *Mixed Methods Procedures*. 2018.
- [8] P. P. Saraswati, "IMPLEMENTASI KEBIJAKAN PENGELOLAAN SAMPAH MELALUI PERATURAN DAERAH NO 07 TAHUN 2021 TENTANG PENGELOLAAN SAMPAH DI KOTA MALANG ( Studi Pada Dinas Lingkungan Hidup Kota Malang ) Program Studi Administrasi Publik , Fakultas Ilmu Administrasi , Universitas Is," *J. Respon Publik*, vol. 17, no. 12, pp. 55–65, 2023.
- [9] L. Nurva and C. Maharani, "Analisis Pelaksanaan Kebijakan Penanggulangan Stunting: Studi Kasus di Kabupaten Brebes Analysis of Stunting Management Policy Implementation: A Case Study in Brebes Regency," • *J. Kebijak. Kesehat. Indones. JKKI*, vol. 12, no. 02, pp. 74–83, 2023.
- [10] H. R. Fauzie, "Peran pemerintah dalam implementasi kebijakan lingkungan di Kabupaten Sidoarjo," *J. Polit. Indones. (Indonesian J. Polit.)*, vol. 8, no. 2, pp. 122–132, 2022, doi: 10.20473/jpi.v8i2.39942.
- [11] A. P. Simarmata, "Menjadi Katalisator Perubahan: Kepemimpinan Karismatik Yang Membentuk Inovasi Organisasi Di Lingkungan Perusahaan," *J. Ekon. dan Bisnis*, vol. 13, no. 2, pp. 286–293, 2024.
- [12] A. Wahyudi, "Strategi Kebijakan Peningkatan Sektor Transportasi Publik Di Jakarta Menuju Net Zero Emission," *Ayan*, vol. 15, no. 1, pp. 37–48, 2024.
- [13] D. A. Hikmah, Khusnul Prasetyo, and Eka Arum Pramestya, "Implementasi Kebijakan Surabaya Cross Culture International sebagai Upaya Pengembangan Pariwisata di Kota Surabaya," *J. Polit. Policy*, vol. 4, no. 1, pp. 1–14, 2022, doi: 10.21776/ub.jppol.2022.004.01.01.
- [14] B. Susyanto, "Manajemen Lembaga Pendidikan Islam Dalam Menghadapi Era Digital," *Al-Madrasah J. Pendidik. Madrasah Ibtidaiyah*, vol. 6, no. 3, p. 692, 2022, doi: 10.35931/am.v6i3.1072.
- [15] B. A. Nafi'ah, "Kajian Ekonomi Politik Transportasi Massa: Studi Kasus Kebijakan Transportasi Massa di DKI Jakarta," *Jejaring Adm. Publik*, vol. 12, no. 2, pp. 148–176, 2021, doi: 10.20473/jap.v12i2.29353.

- [16] I. Irwan and M. R. Nakoe, "Kesiapsiagaan Bencana Berbasis Masyarakat Melalui Pendekatan Partisipatif," *JPKM J. Pengabd. Kesehat. Masy.*, vol. 2, no. 1, pp. 73–83, 2021, doi: 10.37905/jpkm.v1i2.10312.
- [17] M. Djauhari, Rama Abi Kumara, Andini Putri, Yusuf A, Muclis Adi, and Rona Ayu, "Pendekatan Partisipatif Dalam Memberdayakan Pemasaran Online UMKM di Kampung Krupuk Sukolilo Surabaya," *Prapanca J. Abdimas*, vol. 1, no. 1, pp. 28–36, 2021, doi: 10.37826/prapanca.v1i1.134.
- [18] E. Kumala Dewi, S. Patria Jati, and A. Suryoputro Program Magister Kesehatan Masyarakat, "Optimalisasi Peran Lintas Sektor dalam Pelaksanaan Posyandu Remaja," *J. Ilm. Permas J. Ilm. STIKES Kendal*, vol. 14, no. 3, pp. 1011–1026, 2024, [Online]. Available: <https://journal2.stikeskendal.ac.id/index.php/PSKM/article/view/1935>
- [19] Y. P. Yuyut, Y. N. Yeni, and Lasmin Alfies Sihombing, "Upaya Revitalisasi Lingkungan melalui Penanaman Bibit Pohon di Bantaran Sungai Citarum," *Khidmatuna J. Pengabd. Kpd. Masy.*, vol. 5, no. 1, pp. 11–23, 2024, doi: 10.51339/khidmatuna.v5i1.2724.