International Journal of Social Science and Human Research

ISSN (print): 2644-0679, ISSN (online): 2644-0695

Volume 08 Issue 07 July 2025

DOI: 10.47191/ijsshr/v8-i7-58, Impact factor- 8.007

Page No: 5393-5401

Advocacy Power Analysis on Air Pollution Issue in Jakarta City

Vera Aulia Dewi, Sidik Pramono[2]

[1]Faculty of Administrative Science Universitas Indonesia, Gedung M, Jl. Prof. Dr. Selo Soemardjan, Pondok Cina, Kecamatan Beji, Kota Depok, Jawa Barat – 16424, Indonesia

[2] Faculty of Administrative Science Universitas Indonesia, Gedung M, Jl. Prof. Dr. Selo Soemardjan, Pondok Cina, Kecamatan Beji, Kota Depok, Jawa Barat – 16424, Indonesia

ABSTRACT: Air pollution remains an ongoing issue in Jakarta. In 2023, air quality in Jakarta continued to deteriorate. As a result, advocacy efforts by affected groups aim to raise public awareness and pressure the government to address the issue promptly. However, despite various advocacy efforts, there has been no significant improvement in air quality in Jakarta. This study uses the Advocacy That Builds Power theory by Julia Coffman, Gigi Barsoum, et al. (2021), employing a quantitative approach and mixed-method data collection techniques. The results show that the strength of policy advocacy on the issue of air pollution in Jakarta falls into the "moderate" category, as indicated by 162 respondents or 53.3%, reflecting increased public involvement in advocating for air pollution issues in Jakarta through various strategies such as campaigns, actions, public discussions, and legal actions. Furthermore, the response of the Jakarta Provincial Government in addressing the issue has been deemed good. However, the issue requires further attention. Therefore, addressing the air pollution problem in Jakarta requires building cooperation and commitment from all involved actors to achieve good air quality in Jakarta.

KEYWORDS: Policy Advocacy; Awareness; Air Pollution; Air Quality; Environment; Jakarta

I. INTRODUCTION

The province of Jakarta is one of the largest metropolitan areas in Southeast Asia, with a population of 10,679,951 as of 2022 (Central Statistics Agency, 2022). This fact indirectly highlights Jakarta as a major growth hub in Indonesia, with a wide array of activities taking place (Jakarta Environmental Agency, 2023). Consequently, the government is striving to continue development efforts to enhance the well-being of residents in Jakarta and its surrounding areas, including Bogor, Depok, Tangerang, and Bekasi. However, the development process of a region invariably entails various consequences, one of which is the increasingly unsustainable use of natural resources, leading to a direct impact on the decline in environmental quality in the area (Tinambunan, W.D., & Erlianto, R., n.d).

Various environmental issues have emerged over time in Jakarta, one of which is air pollution leading to a decline in air quality. This issue stems from two main factors: natural factors (such as the dry season) and human activities (such as the use of motor vehicles, industrial factories, and waste burning). Air pollution has been a persistent environmental problem in Jakarta for over two decades, dating back to 2002 (Ministry of Environment and Forestry, 2002). According to data from the Air Quality Index (AQI) for the months of July, August, and September 2023, the daily average air quality score in Jakarta ranged from moderate, unhealthy for sensitive groups, unhealthy, very unhealthy, to hazardous (IQAir, 2023). This is further corroborated by a survey conducted by the Ministry of Environment and Forestry in September 2023, which identified Jakarta as the area with the worst air quality in Indonesia.

Air pollution in Jakarta is primarily caused by several factors, including the high number of motor vehicles that have traversed the city over the last five years. According to records from the Jakarta Central Statistics Agency (BPS), over 26.4 million motor vehicles were recorded passing through Jakarta in 2022. Additionally, Jakarta is surrounded by more than 10 coal-powered electricity generating plants within a 100 km radius and a total of 418 manufacturing industries in the surrounding area (BPS DKI Jakarta Province, 2023). These various causes contribute indirectly to adverse effects on public health, especially for residents of Jakarta and commuters who travel to and from the city without residing there, including communities residing in the surrounding Bodetabek area. According to data from the Ministry of Health, air pollution has led to a significant increase in disease cases. As of August 2023, the number of cases rose by 20%-30% compared to the previous month (BBC News Indonesia, 2023).

However, the issue of air pollution in Jakarta has become increasingly complex and a matter of public attention. Advocacy in this context is one of the approaches employed to continuously urge the government to remain consistent in addressing various issues (Zulyadi, 2014). Additionally, advocacy serves as an instrument to enhance knowledge and awareness within the

community. This enables the public to have an adequate understanding of the ongoing public issues, allowing them to participate in resolving these matters (Cunningham, 2019). Advocacy is carried out through various means, including social media campaigns, public demonstrations, public discussions, and taking the issue to court.

In response to this issue, the Jakarta Provincial Government and the Central Government have been working together to implement various solutions to address the air pollution problem in Jakarta. However, these solutions have been deemed not well-implemented and, therefore, ineffective in tackling the air pollution issue in Jakarta. Additionally, the poor air quality in Jakarta is also attributed to the lack of public awareness regarding the use of private transportation and waste burning. This study aims to examine the extent to which policy advocacy efforts to address air pollution issues can build the strength needed, including through the involvement or input of affected groups, to achieve the desired outcome.

II. THEORETICAL FRAMEWORK

This research is based on the theory presented by Julia Coffman, Gigi Barsoum, et al., in their work "Advocacy That Builds Power" (2021), which explains that advocacy is a continuous action chosen to achieve a victory over a policy. However, it is important to note that an advocacy activity must have the strength to build a robust strategy and sustain a victory. In their efforts to build power in the advocacy process, Julia Coffman et al. (2021) facilitate this by using the concept of the power building framework, which explains how strength and power are built when communities that are directly or indirectly affected are involved in the advocacy process to achieve changes in the system or policy.

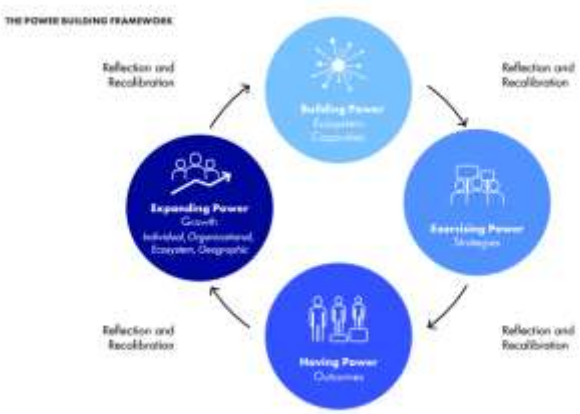

Figure 1. The Power Building Framework
Source: Julia Coffman, Gigi Barsoum (2021)

1. Building Power Dimension (Capacities)

Building power in this context is heavily dependent on a diverse organizational ecosystem. Grassroots organizing groups play a crucial role in this ecosystem as they help form coalitions composed of individuals who are directly impacted and disadvantaged by the issues being addressed. The building power dimension focuses on identifying the types of organizations within the coalition, the areas where power is being developed, identifying issues, establishing common goals and values, and seeking solutions to prioritize in the advocacy process.

2. Exercising Power Dimension (Strategies)

This dimension outlines various advocacy strategies such as campaigns or actions undertaken to monitor an issue and achieve success. The strategies or tactics developed at this stage are aimed at advocacy targets such as the government. Furthermore, this phase also explains the involvement of the community in ongoing advocacy efforts and identifies various developments or achievements attained during the advocacy process. These can be used as foundations or arguments to achieve success in advocacy. Additionally, to strengthen this dimension, Coffman & Beer (2015) have also developed a theory entitled “The Advocacy Strategy Framework” which demonstrates how a strategy will be directly connected to the interim outcomes of the advocacy efforts already undertaken, thereby establishing a long-term objective.

3. Dimension of Having Power (Outcomes)

This dimension explains the results of advocacy, whether successful or unsuccessful in championing a particular issue or policy. The outcomes of the advocacy are then evaluated for their quality and the extent to which they respond to various inputs from the public or specific groups. More simply, this can be illustrated by the impact of the advocacy outcomes on the community. Additionally, outcomes that are considered supportive of successful advocacy can include media involvement aimed at raising public awareness.

4. Dimension of Expanding Power (Growth)

This dimension depicts the impact of advocacy results, whether successful or not, on power, which represents influence or capacity. It reflects the involvement of the community in decision-making processes. This dimension explains the extent to which advocacy results can be implemented and affect all stakeholders involved, not just the community (individuals), but also at the organizational, ecosystem, and geographic levels, in ways that are visible, hidden, and unseen. Based on the aforementioned dimensions, indicators for each dimension are formed and presented through a table of conceptual operationalization. This serves as an analytical framework for deeper insight into the findings from the data obtained by the researchers.

Below is the conceptual operationalization that has been developed:

Table 1. Operationalization of Concept

Dimension	Indicator
Building power (capacities)	Identification of the Types of Organizations Involved in Advocacy Areas Where Power is Built Identifying Issues Developing Shared Goals and Values Seeking Prioritized Solutions in the Advocacy Process
Exercising power (strategies)	Tactics or strategies implemented in the advocacy process, including their scale and quality Who is the target of the advocacy? Assumptions underlying how change occurs Who else is involved in this advocacy and how are they participating? How are affected groups involved in the advocacy? What are the strategies for the coming years? What has been achieved so far from these strategies?
Having Power (outcomes)	What is the outcomes of the executed advocacy? To what extent do the advocacy outcomes give impact to the impacted group?
Expanding Power (growth)	To what extent do the advocacy outcomes impact not only individuals, organizations, ecosystems, and geographical areas, but also in ways that are visible, hidden, and invisible?

Source: Julia Coffman, Gigi Barsoum (2021) & Coffman&Beer (2015)
(Processed by author)

III. METHOD

This research utilizes a quantitative research approach to facilitate the investigation process. The quantitative approach is employed to analyze a variable based on a theoretical framework, subsequently measured using an instrument to generate analyzable data (Creswell, 2009). The study is founded on the theory titled "Advocacy That Builds Power" (2021). Additionally, it incorporates supporting theory from Coffman & Beer (2015) titled "The Advocacy Strategy Framework." This theory is used to analyze the extent of advocacy power, ensuring that this research provides tangible results and solutions capable of assisting the government in addressing air pollution issues in Jakarta.

This study falls under the category of cross-sectional research conducted from December 2023 to June 2024 using a mixed method data collection technique. The population consists of Jakarta residents affected by air pollution and who follow various developments related to air pollution in the city. Further, quantitative data collection was conducted via an online survey distributed from April 22, 2024, to May 29, 2024, which garnered 303 respondents. Qualitative data collection was carried out through in-depth interviews with NGO representatives, government officials, and Jakarta residents, supplemented by a literature review.

The quantitative data analysis technique utilized processes univariate data using frequency distribution via SPSS, measured on a Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5). To assess the strength of policy advocacy on air pollution issues in Jakarta, the researcher categorized responses into “low,” “medium,” and “high.” The instrument trial for this study was conducted using validity tests to measure each question item within the indicator through Pearson Correlation. The analysis revealed that the calculated r-value exceeded the table r-value (0.113), indicating that all question items are valid. Reliability testing was also performed using SPSS with the Cronbach’s Alpha technique, showing that all four dimensions are reliable, as their values surpassed the 0.60-0.79 range (Hair et al., 2010).

IV. RESULT AND DISCUSSION

Jakarta continues to evolve into a megacity region, characterized by its high population density. This condition implicitly reflects the crowded nature of the area and the significant daily human mobility within Jakarta. Consequently, this density indirectly leads to increased human activities, resulting in air pollution. Data from the Jakarta Provincial Statistics Agency (BPS) shows a

continuous increase in both population and the number of motor vehicles from 2019 to 2023. This trend has led to a consistent decline in air quality over the years, as evidenced by the average PM 2.5 concentration. The worst air quality was recorded in 2019, a condition that resurfaced in 2023, marking 2023 as a year with severely poor air quality (Bhawono, 2024).

In response to these issues, the Central Government and Jakarta Provincial Government have enacted and updated several regulations targeting air pollution in Jakarta. These regulations include: the Ministry of Environment and Forestry's Regulation No. 8 of 2023 concerning Emission Standards for Motor Vehicles; the Ministry of Industry's Circular No. 2 of 2023 regarding Emission Control Reporting in the Industrial Sector for Jakarta, West Java, and Banten; Jakarta Governor's Instruction No. 66 of 2019 on Air Quality Control; and the establishment of an Air Pollution Control Task Force based on Governor's Decree No. 593 of 2023.

The various policies implemented by the government are deemed insufficient in effectively addressing the issue of air pollution. Consequently, affected groups continue to engage in policy advocacy efforts to pressure the government and to educate the public on the impacts and dangers of air pollution in Jakarta. When mapped out, the affected groups act as the driving force behind advocacy, the government serves as the target of these advocacy efforts, and academics, mass media, and other stakeholders function as supporters of the advocacy initiatives.

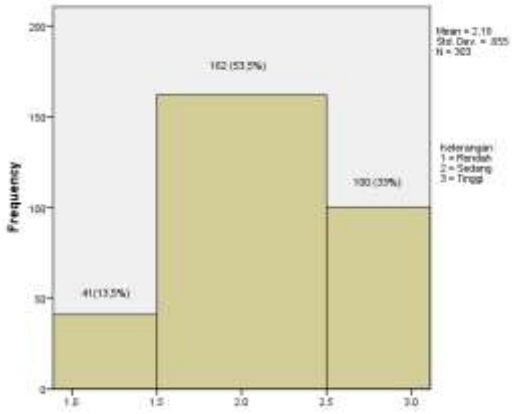

Figure 2. Results of the Computational Analysis on the Strength of Policy Advocacy Addressing Air Pollution Issues in Jakarta (n=303)

Out of 303 respondents, 206 respondents, or 68% of the total, were female. The largest age group among respondents, particularly those who have been involved or have followed various information regarding air pollution in Jakarta, falls within the 22-26 years age category, comprising 160 respondents or 52.8% of the total. This is followed by the 17-21 years age group with 73 respondents (24.1%), the >37 years age group with 30 respondents (9.9%), the 27-31 years age group with 25 respondents (8.3%), and lastly the 32-36 years age group with 15 respondents (5%). Regarding their places of residence, 164 respondents (54.1%) reside in Jakarta, 116 respondents (38.3%) live in West Java, and the remaining 23 respondents (7.6%) are from Banten. The majority of respondents were students, accounting for 151 respondents (49.8%), followed by private sector employees, numbering 85 respondents (28.1%).

The computation of advocacy strength analysis indicates that the power built through policy advocacy on the issue of air pollution in Jakarta falls into the "moderate" category. This is evidenced by 162 respondents (53.5%) supporting this notion. The results also demonstrate an increase in public involvement in advocacy and the emergence of significant support for the advocacy efforts, although public awareness regarding the impact and dangers of air pollution in Jakarta has not been fully developed. In addition, pressure from affected groups has prompted the government to start implementing various measures to address the issue. Furthermore, 100 respondents, or 33% of the total respondents, indicated that the power developed in policy advocacy had reached a high category. Conversely, 41 respondents, or 13.5% of the total respondents, stated that the power developed in the policy advocacy process regarding air pollution issues in Jakarta was still categorized as low. This may be due to a lack of public awareness about the impacts and dangers of air pollution, resulting in low community participation in the advocacy process.

Additionally, the researcher conducted a Crosstab statistical analysis using SPSS, which showed that the majority of respondents rated the power in policy advocacy on Jakarta's air pollution issue as being in the "moderate" category. Of these, the majority were female, with a total of 112 respondents, followed by 50 male respondents. In terms of respondents' age, the majority within the "moderate" category were aged 22-26 years, totaling 87 respondents. When analyzed based on respondents' domicile, the majority categorized as "moderate" resided in Jakarta, with 79 respondents. Finally, based on respondents' occupations classified under the "moderate" category, the majority were students, totaling 79 respondents, followed by private-sector employees with 48 respondents, and the remainder were diverse.

Based on the results of the statistical Crosstab analysis above, further insights indicate that the advocacy processes undertaken by the affected groups are predominantly supported by women. This observation is bolstered by statements from the UNCC, which emphasize that to achieve significant change, especially in relation to climate issues, it is essential to involve 100% of the population, including women. Furthermore, the United Nations asserts that various efforts to address global climate issues and enhance capacity are likely to succeed when women are actively involved in these processes. In addition, the UNCC highlights that women typically are the first responders to environmental issues within communities, demonstrating a higher level of awareness. Generally, those engaged in advocacy efforts tend to be students or young adults aged 21-26 who have easy access to information, thus making them more likely to be educated and concerned about air pollution problems in Jakarta.

However, when examining the computational results, it is evident that 41 respondents indicated the power built through advocacy on air pollution issues in Jakarta remains in the “low” category. This may be attributed to various factors, including the persistent poor air quality in DKI Jakarta. Data from Nafas Indonesia, collected from May to June 2024, consistently shows that the average air quality in Greater Jakarta has remained in the unhealthy category. This situation adversely affects public health, particularly the sensitive groups, and is caused by the pollution factors mentioned above.

Based on the above chart, 145 out of 303 respondents have been involved in the advocacy process and will be discussed under the dimension of building power (capacities). Specifically, 118 respondents, equivalent to 81.4% of the total respondents, indicated that the power built in the policy advocacy process in Jakarta, based on the dimension of building power (capacities), falls into the "high" category. Additionally, 26 respondents or 17.9% of the total respondents rated it as "moderate." Lastly, 1 respondent, representing 0.7% of the total respondents, rated it as "low." Therefore, it can be concluded that, based on the dimension of building power (capacities), the strength of policy advocacy that has been developed is classified as "high".

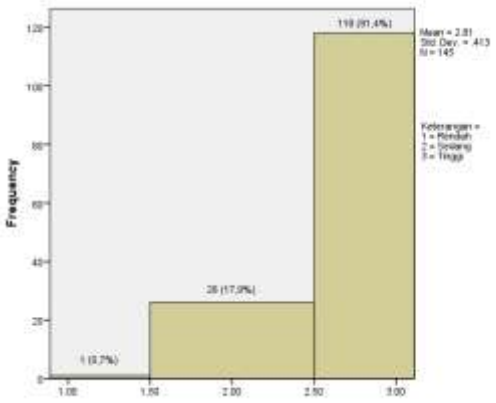

Figure 3. Building Power Dimension (Capacities)

The results are supported by the majority of respondents who agree that the air pollution conditions in Jakarta are worsening and must be addressed immediately. Therefore, NGOs play a crucial role in establishing shared goals and values with the community and are responsible for building coalitions for advocacy. Additionally, NGOs are tasked with providing information and educating the public about the impacts and dangers of air pollution in Jakarta. In this context, most respondents agree that they consistently follow the information updates provided by NGOs. They also concur that the various recommendations made by NGOs have a positive impact on air quality in Jakarta and will aid the government in addressing the air pollution issue in the city.

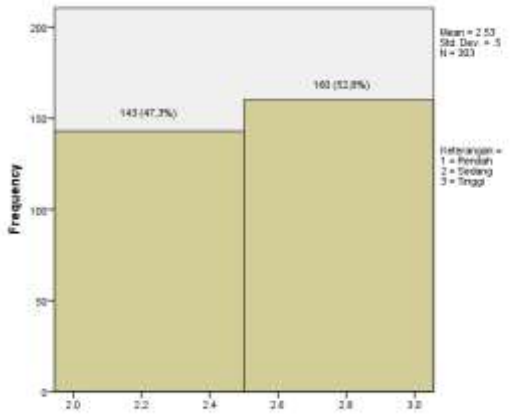

Figure 4. Exercising Power Dimension (Strategies)

Referring to the above graph, the strength of policy advocacy regarding air pollution issues in Jakarta can be concluded as "high" based on the Exercising Power Dimension (Strategies). This is supported by data showing that there are 160 respondents, or 52.8% of the total respondents, classified in the high category. This is reflected in the various advocacy strategies implemented by the affected groups to address air pollution issues in Jakarta, where public involvement in the advocacy process is high and positively impacts the success of these strategies.

Furthermore, various advocacy strategies that have been attempted include campaigns on social media. The majority of respondents indicated that they have undertaken such efforts because social media is easily accessible and provides ample information. Next is protests or demonstrations, where the majority of respondents have not participated due to several reasons, including individual schedules and a preference to avoid conflict. Public discussions are another strategy, yet the majority of respondents have not engaged in these due to a lack of information and limited facilities. Lastly, efforts to litigate air pollution issues in courts have also been considered. Respondents have rated all four strategies as effective in urging the government to promptly address air pollution issues in Jakarta. Following the implementation of these strategies, the majority of respondents agree that the government has made some changes through various enacted regulations.

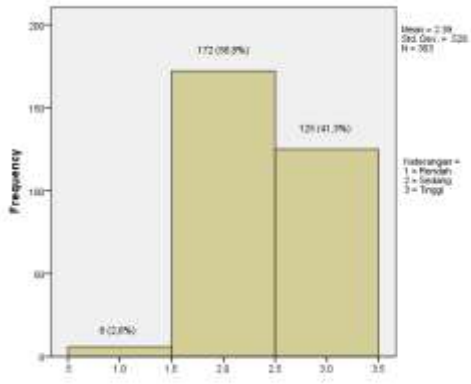

Figure 5. Having Power Dimension (Outcomes)

Based on the above graph, after processing and analyzing the data to measure the strength of policy advocacy on air pollution issues in Jakarta, it can be concluded that it falls into the "moderate" category according to the Having Power (Outcomes) dimension. This conclusion is supported by data showing 172 respondents, or 56.8% of the total respondents, falling into the "moderate" category. This dimension explains the outcomes of the advocacy efforts related to Jakarta's air pollution issue and the extent to which these outcomes impact the advocacy groups.

The majority of respondents were neutral when answering questions about the Jakarta Provincial Government's response to air pollution issues. This neutrality is reflective of the fact that the government did indeed respond directly to the 2019 lawsuit by issuing Governor's Instruction Number 66 of 2019 concerning Air Quality Control. However, there remains a significant degree of controversy within this response. Many respondents remain skeptical about the effectiveness of various government solutions, such as the tasks of the air pollution management task force, the emission test penalties which are seen as inconsistent, the enforcement of sanctions on industries which are perceived as inconsistent, the installation of water mist in several tall buildings which is viewed as a waste of water, and the public's low awareness regarding the use of public transportation. Although the government has made significant efforts to improve integrated public transportation facilities and infrastructure in Jakarta through initiatives like JakLingko, Commuter Line (KRL), MRT, and LRT, challenges remain.

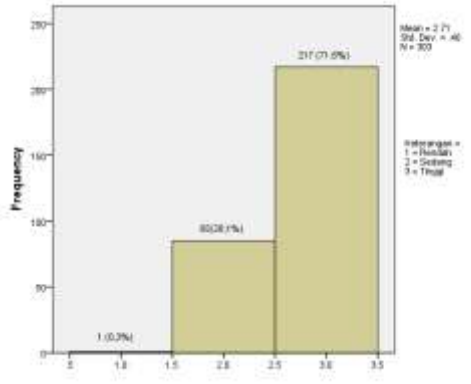

Figure 6. Expanding Power Dimension *(Growth)*

According to the dimension-expanding power chart, the advocacy strength regarding air pollution issues in Jakarta is classified as "high." Data indicates that 217 respondents, or 71.6% of the total respondents, fall into this "high" category. Upon analyzing the table, which illustrates the relationship between visible power, hidden power, and invisible power with individuals, organizations, ecosystems, and geographies, it is evident that the advocacy strategies addressing air pollution in Jakarta have leveraged all aspects of power. This comprehensive approach aims to maximize the advocacy process to improve air quality in Jakarta. Moving forward, the advocacy strategies employed by the affected groups must be comprehensive, involving various stakeholders and conducted in a sustainable manner.

CONCLUSIONS

Based on the research findings regarding the strength of policy advocacy on air pollution issues in Jakarta Province, it can be concluded that various advocacy efforts undertaken by impacted groups fall into the “moderate” category. This indicates that the advocacy process has seen direct involvement from the public, resulting in a robust advocacy strategy. This outcome is reflected in the data processing and analysis conducted by the researchers, revealing that 162 respondents, or 53.5% of the total respondents, fall into this category. The growing participation of the community in various advocacy processes, such as social media campaigns, direct actions, public discussions, and even lawsuits against the government, indirectly shows that public awareness of air pollution issues has been built and is steadily increasing year by year. Additionally, the response from the Jakarta Provincial Government in addressing this issue is also deemed positive, as they have promptly dealt with the court rulings from a citizen coalition lawsuit a few years ago.

However, it should also be noted that some respondents categorized the advocacy as “low.” This is due to the recent poor air quality in Jakarta, which is attributed to a lack of public awareness in using public transportation and the burning of waste, as well as government solutions that are considered insufficient in addressing the root of the problem.

ACKNOWLEDGMENT

The researchers express their gratitude to Dr. Reza Faturrahman and Dr. Vishnu Juwono from the Department of Public Administration, Faculty of Administrative Science, University of Indonesia, for their valuable input, which has significantly contributed to making the research development design more comprehensive.

REFERENCES

1) Awokola, B. I., Okello, G., Mortimer, K. J., Jewell, C. P., Erhart, A., & Semple, S. (2020). Measuring Air Quality for Advocacy in Africa (MA3): Feasibility and Practicality of Longitudinal Ambient PM2.5 Measurement Using Low-Cost Sensors. International Journal of Environmental Research and Public Health. doi:10.3390/ijerph17197243
2) Badan Pusat Statistik. (2022). Jumlah Penduduk Menurut Kabupaten/Kota di Provinsi DKI Jakarta (Jiwa), 2020-2022. Retrieved 2023, from BPS Provinsi DKI Jakarta: https://jakarta.bps.go.id/indicator/12/1270/1/jumlah-penduduk-menurut-kabupaten-kota-di-provinsi-DKI-jakarta-.html
3) BBC News Indonesia. (2023, Agustus). Kasus ISPA di RSUP Persahabatan Jakarta melonjak - Apa akibat jangka panjang polusi udara? Retrieved September 2023, from BBC News Indonesia: https://www.bbc.com/indonesia/articles/c4n7ln8y8pvo
4) Booth, R. B. (2023). Youth Are Interested in Political Action, but Lack Support and Opportunities. Retrieved 2024, from circle.tufts.edu: https://circle.tufts.edu/latest-research/youth-are-interested-political-action-lack-support-and-opportunities
5) Cresswell, A. W. (2009). Research Desain : Qualitative, Quantitative, and Mixed Method. SAGE Publication. Retrieved Desember 2023
6) Cunningham, W. L. (2019). Moving Toward Understanding Social Justice in Sport Organizations: A Study of Engagement in Social Justice Advocacy in Sport Organizations. Sage Journals, 43(3). Retrieved October 2023, from https://doi.org/10.1177/0193723519832469
7) Cortesi, Sandra, Hasse, A., Lombana-Bermudez, A., & Sonia. (2020). Youth and Digital Citizenship+ (Plus): Understanding Skills for a Digital World. Harvard Library. Retrieved 2024
8) Dzahabiyyah, J. (2023, Oktober). Buruknya Komunikasi Publik Pemerintah tentang Polusi Udara. Retrieved 2023, from Remotivi Pusat Kajian Media & Komunikasi: https://www.remotivi.or.id/headline/esai/845
9) Fadhlurrahman, I. (2023). Polusi Udara DKI Jakarta Sore Hari Terparah di Indonesia (Selasa, 12 September 2023). Databoks. Retrieved September 2023, from https://databoks.katadata.co.id/datapublish/2023/09/12/polusi-udara-DKI-jakarta-sore-hari-terparah-di-indonesia-selasa-12-september-2023
10) Gandhiok, J. (2020, November). Delhi: Spraying water may not get you clean air. Retrieved 2023, from The Times Of India: https://timesofindia.indiatimes.com/city/delhi/delhi-spraying-water-may-not-get-you-cleanair/articleshow/79402501.cms

11) Harahap, R. E. (2023). Peran Organisasi Non-Pemerintah dalam Advokasi Kesejahteraan Masyarakat. Litermote. Retrieved 2024, from https://liternote.com/index.php/ln/article/view/108/82
12) Hasibuan, J. A. (2019). Pengaruh Dampak Pencemaran Udara Terhadap Kesehatan Untuk Menambah Pemahaman Masyarakat Awam Tentang Bahaya Dari Polusi Udara. Prosiding SNFUR 4, 3002-2 - 3002-4. Retrieved 2023, from https://snf.fmipa.unri.ac.id/wp-content/uploads/2019/09/18.-OFMI-3002.pdf
13) Janna, N. M. (2021). Konsep Uji Validitas dan Reliabilitas dengan Menggunakan SPSS. Retrieved Desember 2023, from file:///C:/Users/LENOVO/Downloads/Artikel%20Statistik%20Yang%20Benar.pdf
14) JDIH Provinsi DKI Jakarta. (2019). Instruksi Gubernur Nomor 66 Tahun 2019 tentang Pengendalian Kualitas Udara. Retrieved 2024, from jdih.jakarta.go.id: https://jdih.jakarta.go.id/dokumen/detail/3446
15) Kementerian Lingkungan Hidup. (2005). Studi Polusi Udara di DKI Jakarta Tahun 2002-2005. Jakarta: Permustakaan Menhlhk. Retrieved 2024
16) Kementerian Hukum dan HAM RI. (2005). Peraturan Daerah Provinsi Daerah Khusus Ibu Kota Jakarta. Peraturan Daerah Provinsi. Retrieved September 2023, from ditjenpp.kemenkumham.go.id: http://ditjenpp.kemenkumham.go.id/files/ld/2005/perdadki2-2005.pdf
17) Kementerian Lingkungan Hdup dan Kehutanan. (2023). Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor 8 Tahun 2023 tentang Penerapan Baku Mutu Emisi Kendaraan Bermotor Kategori M, Kategori N, Kategori O, dan Kategori L, Retrieved 2024, from peraturan.bpk.go.id: https://peraturan.bpk.go.id/Details/262504/permen-lhk-no-8-tahun-2023
18) Mahalana, A., Yang, L., Dallmann, T., Lestari, P., & Maulana, K. (2022). Pengukuran Emisi Kendaraan Bermotor Real World di Jakarta, Indonesia. Jakarta: true, The Real Urban Emission Initiative. Retrieved 2024, from https://theicct.org/wp-content/uploads/2022/11/true-jakarta-remote-sensing-in-nov22.pdf
19) Mahardhani, A. J. (2018). Advokasi Kebijakan Publik. Ponorogo: Penerbitan& Percetakan Calina Media. Retrieved 2024, from http://eprints.umpo.ac.id/5810/1/cover%20%2B%20isi%20buku%20advokais%20kebijakan.pdf
20) Nafas Indonesia. (2023). Laporan Kualitas Udara Juli_2023. Nafas Indonesia. Retrieved September 2023
21) Nathania, B., & Fadhillah, F. (2020). Rangkuman Perjalanan Gugatan Warga Negara tentang Polusi Udara Jakarta pada Tahun 2019. Retrieved October 2023, from https://icel.or.id/wp-content/uploads/2022/10/Rangkuman-Perjalanan-Gugatan-Warga-Negara-Tentang-Polusi-Udara-Jakarta-Pada-Tahun-2019.pdf
22) Nathanson, J. A. (2024). air pollution control. Retrieved 2024, from britannica.com: https://www.britannica.com/technology/air-pollution-control
23) Nowak, D. J. (2013). Modeled PM2.5 removal by trees in ten U.S. cities and associated health. Environmental Pollution, 178, 397-398. Retrieved October https://www.fs.usda.gov/nrs/pubs/jrnl/2013/nrs_2013_nowak_002.pdf, 2023
24) Pemerintah Provinsi DKI Jakarta. (2023). Kebijakan Komprehensif Atasi Polusi Udara Jakarta. Retrieved 2024, from jakarta.go.id: https://www.jakarta.go.id/page/kebijakan-komprehensif-atasi-polusi-udara-jakarta
25) Power, E., McCarthy, N., Kelly, I., Cannon, M., & Cotter, D. (2023). Climate change and mental health: time for action and advocacy. Irish Journal of Psychological Medicine, 40, 6-8. doi:10.1017/ipm.2021.70
26) Pusat Studi Lingkungan Hidup Universitas Gajah Mada. (2022). Peran Serta Masyarakat Dalam Pengelolaan Lingkungan Hidup. Retrieved 2024, from pslh.ugm.ac.id: https://pslh.ugm.ac.id/peran-serta-masyarakat-dalam-pengelolaan-lingkungan-hidup/
27) Ruhiat, F., Heryadi, D., & Akim. (2019). Strategi NGO Lingkungan Dalam Menangani Polusi Udara di Jakarta (Greenpeace Indonesia). Andalas Journal of International Studies, 8(1). doi:https://doi.org/10.25077/ajis.8.1.16-30.2019
28) Saputra, A. (2020). CAMI: Aplikasi Uji Validitas dan Reliabilitas Instrumen Penelitian Berbasis Web. (A. S. Ahmar, Ed.) Yayasan Ahmar Cendikia Indonesia. Retrieved Desember 2023, from https://books.google.co.id/books?hl=id&lr=&id=mZgMEAAAQBAJ&oi=fnd&pg=PA1&dq=penjelasan+terkait+uji+validitas&ots=YlEo7HCzpK&sig=AOsQi6GjZqepJ0ozK2-421TTfUo&redir_esc=y#v=onepage&q=penjelasan%20terkait%20uji%20validitas&f=false
29) Shafar, W. I., & Isnaeni, N. (2022). Pengaruh Jaringan Advokasi Greenpeace terhadap CIMB International dalam Isu Pendanaan PLTU Batu Bara di Indonesia. Retrieved Desember 2023
30) Suwitri, S. (2008). Konsep Dasar Kebijakan Publik. Analisis Kebijakan Publik , 1.7-1.10. Retrieved November 2023, from https://d1wqtxts1xzle7.cloudfront.net/57623163/PDFkebiajakan_publik-libre.pdf?1540354858=&response-content-disposition=inline%3B+filename%3DKonsep_Dasar_Kebijakan_Publik.pdf&Expires=1699865074&Signature=cpMoMt-6w2QqTciS80MFiTfA7Z3r50LQ5TmFUt7CwwXC~AqDGlMD
31) Tilt, B. (2018). China's air pollution crisis: Science and policy perspectives. Environmental Science and Policy, 275-280. doi:https://doi.org/10.1016/j.envsci.2018.11.020
32) Unsicker, J. (2012). Confronting Power: The Practice of Policy Advocacy. London: Kumarian Press. Retrieved November 2023, from https://www.rienner.com/uploads/553a96ce69d0b.pdf

33) Vital Strategies. (2022). Sumber Utama Polusi Udara di DKI Jakarta. Retrieved 2024, from vitalstrategies.org: https://www.vitalstrategies.org/wp-content/uploads/Sumber-Utama-Polusi-Udara-di-DKI-Jakarta_Policy-Brief.pdf
34) World Economic Forum. (2022). A new survey reveals what the world thinks about climate change. weforum.org. Retrieved 2024, from https://www.weforum.org/agenda/2022/07/our-largest-ever-climate-survey-can-inform-policies-research-and-campaigns-around-the-world/
35) World Health Organization. (2019). What is Air Pollution? WHO.Int, 1. Retrieved September 2023, from https://cdn.who.int/media/docs/default-source/searo/wsh-och-searo/what-is-air-pollution-2019.pdf?sfvrsn=6dcc13ee_2
36) Zulyadi, T. (2014). Teuku Zulyadi. 2. Retrieved September 2023, from https://jurnal.ar-raniry.ac.id/index.php/bayan/article/download/124/113