Available online at http://e-journal.upstegal.ac.id/index.php/IGJ

Indonesian Governance Journal
(Kajian Politik – Pemerintahan)
ISSN: 2721-1991
https://doi.org/10.24905/igj.v8i1.147
Volume: 08 No: 01

Community Participation and Policy Effectiveness in Urban Flood Mitigation: Evidence from Palembang City, Indonesia

Rahmat Rafinzar[1]
Zailani Surya Marpaung[1]
Tuty Khairunnisa[1]
Maria Immaculata Yovita Adventy[1]
Indah Permatasari[1]

Sriwijaya University, South Sumatera, Indonesia

Corresponding author : rahmatrafinzar@fisip.unsri.ac.id

Article Info

Keyword:
flood mitigation; community participation; mitigation policies; policy effectiveness; modern technology.

Abstract: Urban flooding has emerged as a recurrent and escalating challenge in many Southeast Asian cities, including Palembang, Indonesia. Despite various mitigation efforts by local authorities, the effectiveness of such policies remains inconsistent, often due to limited community engagement. This study investigates the extent to which flood mitigation policies influence community participation and how this participation contributes to policy effectiveness. Employing a quantitative research design, data were collected from 81 residents across 27 flood-prone neighborhoods using structured questionnaires. Descriptive statistics, correlation analysis, and multiple regression models were employed to analyze the relationship between specific policy domains, particularly drainage improvement and waste management (P4), and levels of community engagement. The results reveal a strong positive correlation (r = 0.81) between P4 policy implementation and community participation, with regression analysis indicating that 67% of the variance in public engagement is explained by policy variables. These findings highlight the critical role of inclusive policy design, community-based monitoring, and education-driven interventions in flood risk reduction. However, challenges such as inconsistent enforcement and limited technological adoption remain. The study concludes by recommending the institutionalization of local task forces and curriculum-integrated environmental education to sustain community involvement. This research contributes to the literature on participatory disaster governance and provides actionable insights for urban policymakers and planners in the Global South.

Kata Kunci:
mitigasi banjir; partisipasi masyarakat; kebijakan mitigasi; efektivitas kebijakan; teknologi modern.

Abstrak: *Banjir perkotaan telah muncul sebagai tantangan yang berulang dan meningkat di banyak kota di Asia Tenggara, termasuk Palembang, Indonesia. Meskipun berbagai upaya mitigasi oleh pemerintah daerah telah dilakukan, efektivitas kebijakan tersebut tetap tidak konsisten, sering kali karena terbatasnya keterlibatan masyarakat. Studi ini menyelidiki sejauh mana kebijakan mitigasi banjir memengaruhi partisipasi masyarakat dan bagaimana partisipasi ini berkontribusi pada efektivitas kebijakan. Dengan menggunakan desain penelitian kuantitatif, data dikumpulkan dari 81 penduduk di 27 lingkungan rawan banjir menggunakan kuesioner terstruktur. Statistik deskriptif, analisis korelasi, dan model regresi berganda digunakan untuk menganalisis hubungan antara domain*

kebijakan tertentu—terutama perbaikan drainase dan pengelolaan limbah (P4)—dan tingkat keterlibatan masyarakat. Hasilnya mengungkapkan korelasi positif yang kuat (r = 0,81) antara implementasi kebijakan P4 dan partisipasi masyarakat, dengan analisis regresi menunjukkan bahwa 67% varians dalam keterlibatan publik dijelaskan oleh variabel kebijakan. Temuan ini menyoroti peran penting desain kebijakan inklusif, pemantauan berbasis masyarakat, dan intervensi berbasis pendidikan dalam pengurangan risiko banjir. Namun, tantangan seperti penegakan hukum yang tidak konsisten dan adopsi teknologi yang terbatas masih ada. Studi ini diakhiri dengan rekomendasi pelembagaan gugus tugas lokal dan pendidikan lingkungan yang terintegrasi dengan kurikulum untuk mempertahankan keterlibatan masyarakat. Penelitian ini berkontribusi pada literatur tentang tata kelola bencana partisipatif dan memberikan wawasan yang dapat ditindaklanjuti bagi para pembuat kebijakan dan perencana perkotaan di belahan bumi selatan.

Article History: Received 21-May-2025, Revised 17-June-2025, Accepted: 25-June-2025

INTRODUCTION

Palembang City, located in South Sumatra, Indonesia, is historically vulnerable to flooding due to its geographical setting near the Musi River and ongoing urbanization. Flooding has been exacerbated by factors such as poor drainage infrastructure, land conversion, deforestation, and improper waste management. These problems intensify during the rainy season and lead to considerable material and social losses. One of Palembang's primary issues is flooding, often caused by a combination of heavy rainfall, inadequate drainage systems, and human activities such as improper waste disposal and unplanned urban development. These problems are exacerbated by deforestation and land conversion, which reduce groundwater absorption capacity and increase flood risks. As one of Indonesia's oldest cities, Palembang has witnessed various social, economic, and environmental transformations. Its location in a lowland area surrounded by the Musi River makes it highly vulnerable to flooding. In recent decades, rapid urbanization, population growth, and infrastructure development have significantly impacted environmental governance and disaster risks, particularly flooding (Rahman et al., 2022).

Flooding in Palembang has become a recurring issue each year, especially during the rainy season. According to the Palembang City Development Planning and Research Agency (Bappeda Litbang, 2022), floods in the city are often caused by a combination of heavy rainfall, inadequate drainage systems, and environmentally damaging human activities such as improper waste disposal and uncontrolled land conversion. This issue is further exacerbated by deforestation in surrounding areas, reducing groundwater absorption capacity and increasing the risk of waterlogging. Additionally, construction projects that disregard spatial planning exacerbate the impact of flooding in densely populated areas (Novrial et al., 2023).

Flooding not only causes significant material losses but also affects the social, health, and economic aspects of the community (Ariadi et al., 2023). Material damages include the destruction of homes, roads, and public infrastructure. In terms of health, floods can lead to the spread of diseases such as dengue fever, leptospirosis, and diarrhea due to water contamination (WHO, 2021). Socially, flooding disrupts daily activities, including access to schools, workplaces, and public facilities. To address these challenges, the Palembang City Government has implemented various flood mitigation policies. These policies are certainly undertaken as efforts to improve the quality of public services (Adventy et al., 2024). Key measures include the construction of drainage infrastructure to improve water flow capacity, river flow management to prevent the overflow of the Musi River, and educational programs aimed at raising public awareness about the importance of maintaining environmental cleanliness (Pramudita & Noorratri, 2023). However, the effectiveness of these policies is often questioned due to inconsistent implementation in practice.

The importance of community involvement in disaster risk management has been acknowledged in various studies. According to Palma et al., (2025), effective disaster risk reduction strategies must adopt comprehensive, participatory, and inclusive approaches to maximize their impact, particularly through community-based methods. This is relevant in the context of flood mitigation in Palembang, where collaboration between the government, community, and private sector is crucial.

Community participation is fundamental to the effectiveness of urban flood mitigation policies, especially in rapidly growing cities like Palembang, Indonesia. Evidence suggests that participatory approaches enhance policy outcomes by incorporating the voices of local stakeholders, facilitating inclusive decision-making, and fostering accountability in governance. Participation can be defined as the involvement of individuals or groups in activities that influence decision-making, encompassing suggestions as well as services that impact community development (Mardianto et al., 2022). In the context of Palembang, the implementation of a deliberative democratic framework appears crucial for community participation in urban flood mitigation efforts. Studies show that effective participation enhances the legitimacy and relevance of public policies (Rafinzar et al., 2023; Rafinzar, et al., 2023).

Community participation is a crucial factor in the success of mitigation policies. The public plays a vital role in supporting policy implementation through simple actions, such as keeping drainage channels clean, avoiding improper waste disposal, and adhering to environmentally friendly construction guidelines (Khatimah et al., 2021). Active public involvement can significantly reduce the impact of flooding and ensure the sustainability of mitigation efforts in the future. Conversely, a lack of awareness and engagement remains a major barrier to effective flood risk management (Permatasari & Putra, 2024). Found that the dynamics of agenda-setting and policy formulation play a crucial role in the implementation of the Sustainable Development Goals (SDGs) and are integral to achieving these goals, as part of the Sustainable Development Goals (SDGs), particularly Goal 11 on "Sustainable Cities and Communities," flood mitigation is a critical priority for creating safer and more inclusive urban environments (UNDP, 2021). The SDGs emphasize the need for a holistic approach to urban challenges, including the integration of technology-driven policies and community engagement. With such an approach, Palembang has the potential to become a model city for sustainable disaster risk management.

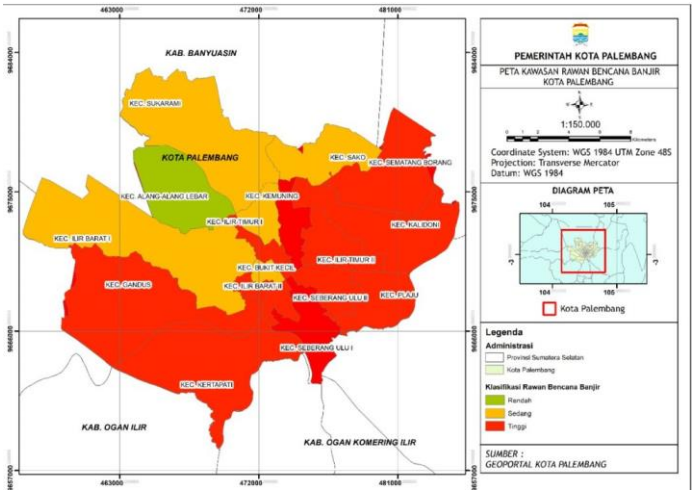
Moreover, the role of local governance in facilitating effective community participation cannot be understated. Studies emphasize the importance of good governance principles, such as transparency and accountability (Khairunnas et al., 2023). Collaborative models of deliberation that involve all stakeholders promise improvements in urban management, including flood mitigation strategies, by creating a shared sense of ownership over policy outcomes. This is particularly relevant in the context of Palembang's burgeoning population and ongoing urban challenges, including climate variability that exacerbates flooding incidents (Rafinzar et al., 2023).

Because it hinders disaster-resistant communities, unsustainable environmental practices increase societal vulnerability (Cutter et al., 2008). Designing with affected populations, building on experience and local knowledge, and using technology to improve risk communication and discourse can improve change efficacy and acceptance (UNDRR, 2022). In Palembang, inappropriate garbage disposal and uncontrolled land conversion impair flooding severity and mitigation policies. Local communities should be included in flood mitigation planning and execution to make solutions more effective and popular.

However, despite the recognized importance of community participation in flood mitigation efforts, there remains a significant gap in understanding how specific mitigation policies directly influence community engagement, particularly at the local level. Most existing studies focus on the technical or infrastructural aspects of flood management, with limited attention given to the social dimension—specifically how policy design and implementation shape public behavior and involvement. In the context of Palembang, where flooding continues to be a recurring issue, there is still insufficient empirical evidence regarding the effectiveness of current mitigation policies in fostering active community participation. This research aims to fill that gap by examining the relationship between mitigation policies and community participation, providing valuable

insights for policymakers seeking to enhance flood resilience through more inclusive and participatory approaches.

Fig 1. Flood Map of Palembang City



Source: Bappeda Litbang Palembang City

The two hypotheses proposed in this study are as follows: H1: Flood prevention mitigation policies significantly influence community participation in Palembang, and H2: Community participation in flood mitigation policies enhances the effectiveness of reducing flood impacts. The methods used include descriptive analysis, validity and reliability tests, normality tests, bivariate analysis, and hypothesis testing. The results of this study are expected to provide deeper insights into the effectiveness of mitigation policies and assist in designing more effective strategies to increase community engagement in flood prevention efforts in the future. Based on this background, this study investigates the extent to which flood mitigation policies affect community participation and how such participation influences the success of flood mitigation strategies. The research problem is formulated as: How do flood prevention mitigation policies influence community participation in Palembang? The objective of the study is to analyze the influence of flood prevention mitigation policies on community participation in Palembang.

Literature Review

Flood Prevention Mitigation Policies

Flood prevention mitigation policies are efforts by the government and the community to reduce flood risks through structural and non-structural approaches. Climate change, rainfall intensity, and human activities such as vegetation cover reduction and sedimentation are the main factors that increase flood risks (Yuniartanti, 2018). Research by Maitsa et al., (2021) indicates that rainfall distribution patterns can influence the design and planning of flood mitigation infrastructure. Additionally, technologies such as Geographic Information Systems (GIS) play a crucial role in mapping flood-prone areas, enabling more informed decision-making (Nuryanti et al., 2018).

The utilization of technology in early detection and flood management, such as IoT devices (Hanggara & Eka Putra, 2021), along with community education programs, has become a vital component of mitigation policies. These efforts support findings that a collaborative approach between the government, the community, and technology can enhance the effectiveness of mitigation policies (Khatimah et al., 2021; Rahman et al., 2022).

Public Participation

Public participation is a key element in the success of flood mitigation efforts (Novrial et al., 2023). Demonstrated that involving the community in vertical drainage systems in Medan not only reduces flood risks but also improves the quality of life. Training programs, such as disaster mitigation training (Ariadi et al., 2023) and post-disaster education (Sari et al., 2023), empower communities to take preventive actions and minimize the impacts of flooding. Building strong, sustainable communities requires community participation. Governments, non-governmental organisations, and other institutions must encourage community participation in development programmes (Darmanto et al., 2024).

Research by Buchari (2020) highlights the importance of community-based institutions in mitigation management, facilitating better coordination during emergencies. Furthermore, policy socialization and community involvement in disaster risk reduction increase public awareness and preparedness (Pramudita & Noorratri, 2023; Wulandari et al., 2022). Thus, the synergy between education, technology, and active community participation forms the foundation for sustainable mitigation policies. Additionally, involving academics and private sector stakeholders can assist in addressing issues encountered in the field (Susilowati et al., 2022)

The Relationship Between Mitigation Policies and Public Participation

Mitigation policies that involve the community tend to be more successful as they foster a sense of ownership and responsibility among residents toward their environment (Reski & Zahtamal, 2021). Found that community behavior in addressing flood impacts is heavily influenced by their awareness and knowledge, highlighting the need for mitigation programs to prioritize continuous education.

Community-involved flood-prone area mapping, as recommended by Wulandari et al., (2022), provides critical information that can be utilized for effective mitigation strategies. Such participation enables the development of community-based solutions that are better aligned with local needs, as noted by Rahman et al., (2022).

Hypothesis Framework

H1: Flood prevention mitigation policies significantly influence public participation in Palembang.

H2: Public participation in flood mitigation policies enhances the effectiveness of reducing flood impacts.

RESEARCH METHOD

The research employs a quantitative method. According to Sugiyono (2012), quantitative research aims to understand the relationships between two or more variables. This study seeks to develop a theory to explain, predict, and control specific phenomena (Sugiyono, 2007). The research was conducted in Palembang, focusing on neighborhoods (Rukun Tetangga or RT) that are flood-prone areas. In these regions, behaviors such as waste disposal into rivers and the construction of buildings over drainage channels exacerbate flooding conditions. The study covers the period of 2023–2024, chosen for the availability of detailed and comprehensive data on flooding situations and documented activities. According to Sugiyono (2016), the population is a generalization area consisting of objects or subjects with specific characteristics set for study. Respondents were selected using the purposive sampling method, a deliberate selection based on criteria relevant to the research, as explained by Moleong (2017). The target respondents are residents of 109 RT across Palembang, representing the population affected by flooding. A sample measurement was conducted using simple random and systematic sampling techniques. The sample size was determined using the sample size formula (Arikunto, 2010), assuming a community participation rate of 30%, a precision level of 0.1%, and an α level of 0.3%.

Based on the calculations, the minimum sample size is 81 respondents. Using SPSS:19 and the Random Facilities-Member Generator, the 81 respondents were divided across 27 locations, resulting in 3 respondents per location or neighborhood (RT). The study was conducted in Palembang, focusing on 27 flood-prone locations across various sub-districts and districts. The

research spans from 2023 to 2024, with respondents selected using the purposive sampling method. The statistical formula determined a minimum sample size of 81 respondents, with 3 respondents per location. The independent variable, also known as the free variable, is the factor that influences or causes changes in the dependent variable. According to Sugiyono (2016), the independent variable exerts influence or triggers changes in the dependent variable. In this study, the independent variable analyzed is the *Flood Prevention Mitigation Policy*, serving as the independent variable (X). Conversely, the dependent variable is the one affected or resulting from the independent variable. (Sugiyono, 2016) describes the dependent variable as the one influenced or as the outcome of the independent variable. In this research, the dependent variable examined is *Public Participation* (Y).

In this study, data processing and analysis were conducted using the Python programming language as the primary analytical tool. Python was selected for its robust libraries such as Pandas for data manipulation, NumPy for numerical computations, and Matplotlib and Seaborn for generating interactive and high-quality visualizations. These tools enabled efficient handling of structured data, implementation of statistical analyses, and clear presentation of research findings. Additionally, Python's versatility and widespread use in data science make it a reliable and scalable choice for both academic research and real-world applications.

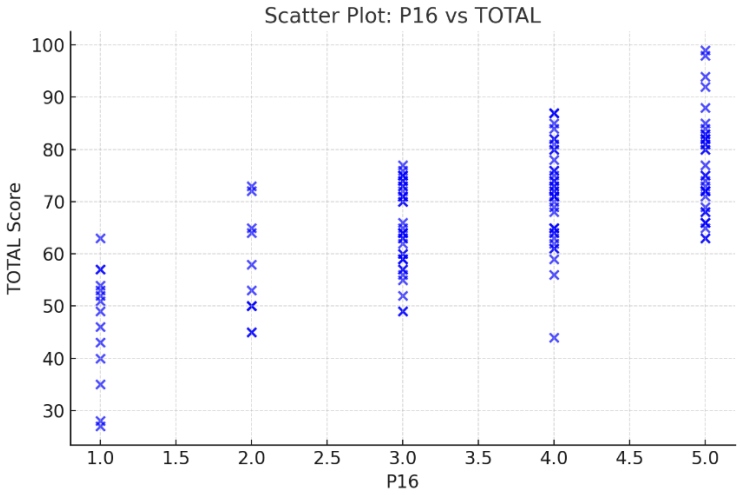
RESULT AND DISCUSSION

Influence of Mitigation Policies on Community Participation

The success of flood management efforts in Palembang will depend not only on government actions but also on active community involvement. According to Irawan (2023) the community can actively participate in village development and provide material and formal contributions for mutual advancement. This emphasises community engagement in flood risk mitigation.

The correlation analysis results indicate that the P4 mitigation policy has a very strong relationship with community participation (TOTAL), with a correlation coefficient of 0.81. This correlation suggests that policies focusing on improving drainage systems and waste management effectively enhance community involvement in supporting flood mitigation efforts. As highlighted by (Novrial et al., 2023), public engagement in activities such as cleaning drainage channels and utilizing environmentally friendly technologies significantly impacts flood risk reduction in urban areas. The scatter plot (Figure 1) shows a positive linear relationship between the P4 variable and TOTAL. This means that the higher the effectiveness of the P4 policy, the greater the level of public participation. These findings support the hypothesis that mitigation policies influence public participation.

Fig 2. Scatter Plot Between P4 Variable and TOTAL



Source: Analysis Results Using Python

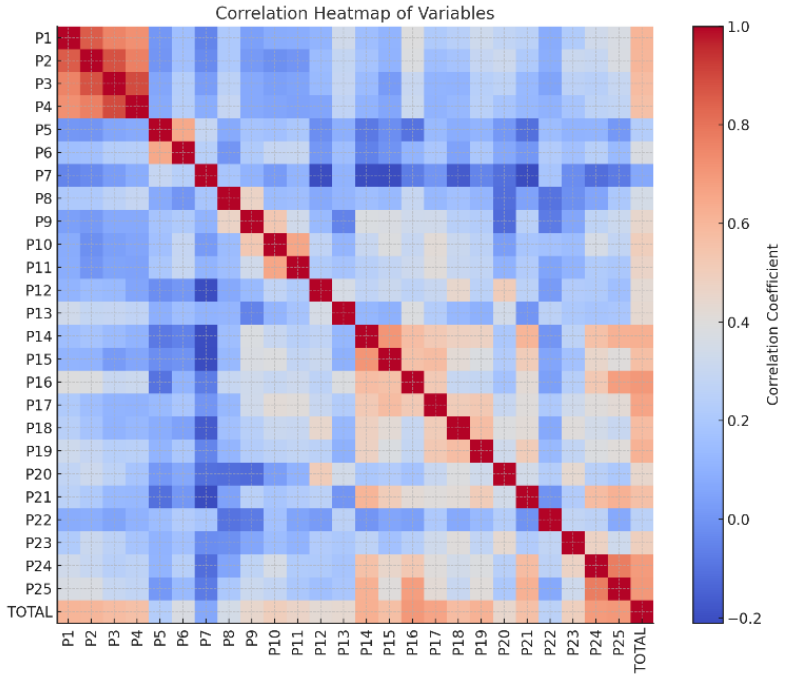
Additionally, the correlation heatmap (Figure 2) illustrates the relationship between all mitigation policy variables and community participation (TOTAL). Dark red areas indicate a strong positive correlation, as seen with P4, while lighter shades represent weaker correlations. This data confirms that certain policies have a more significant impact than others.

Several factors may explain why P4 exhibits a stronger correlation compared to other policy variables. First, P4 might include initiatives that are highly visible, easily accessible, or directly relevant to local community needs, thereby encouraging higher levels of participation. For example, if P4 focuses on educational programs or environmental awareness campaigns, it could effectively raise public awareness and empower residents to take proactive steps in flood mitigation. Second, the design of P4 may better align with community values or needs, making it easier for residents to engage meaningfully.

Community participation plays a crucial role in achieving sustainable flood mitigation strategies. Public awareness and active involvement in environmentally responsible practices are essential for long-term success. Local education and initiatives can significantly contribute to increasing environmental awareness and promoting more responsible behavior toward the environment. This further emphasizes the need for proactive community involvement in Palembang's flood mitigation efforts, where policies like P4 appear to serve as effective catalysts for engagement. In conclusion, the Scatter Plot and correlation heatmap collectively highlight the importance of understanding which policies are most effective in mobilizing community participation. By identifying and leveraging the strengths of policies such as P4, policymakers can design more targeted and impactful interventions to enhance flood resilience in Palembang.

Community participation is vital in achieving sustainable flood mitigation strategies. As Idris et al., (2025) state, citizen awareness and participation in sustainable practices are crucial. Local education and initiatives can raise environmental awareness and encourage more environmentally responsible behavior.' This underscores the need for proactive community involvement in Palembang's flood mitigation efforts.

Fig 3. Heatmap of Correlation Between Mitigation Variables



Source: Analysis Results Using Python

However, the primary challenge in implementing mitigation policies is the lack of consistency and oversight. As highlighted by (Rahman et al., 2022), policy effectiveness often diminishes without adequate monitoring, particularly in communities with limited awareness of the importance of environmental stewardship.

Furthermore, regression analysis reveals that the mitigation policy variables collectively contribute significantly to community participation, with an R-squared value of 0.67. This indicates that 67% of the variation in community participation can be explained by the policies analyzed. This significant contribution demonstrates that well-designed policies can effectively motivate communities to engage more actively. Research by Khatimah et al., (2021) supports these findings, emphasizing that a collaborative approach involving the government, communities, and technology plays a critical role in the success of disaster mitigation programs. The literature review also shows that policies integrating modern technology, such as flood-prone area mapping through Geographic Information Systems (GIS), can amplify the impact of policies on community participation. For instance, Nuryanti et al., (2018) found that using GIS technology in flood risk mapping provides more accurate information to communities, thereby increasing their awareness and involvement. In the context of Palembang, the P4 policy leveraging modern technology could be more effective when combined with community engagement through environmental education programs.

Moreover, policies that directly involve the community through collaborative programs, such as communal efforts to clean drainage channels and reduce improper waste disposal, are key factors in increasing community participation. As highlighted by Ilhami & Achmad (2023), these community-based programs not only enhance the effectiveness of mitigation policies but also strengthen the collective sense of responsibility among residents toward their environment. However, a significant challenge lies in the inconsistent implementation of mitigation policies, particularly regarding monitoring and enforcement. Although policies like P4 have substantial potential, their impact on community participation may diminish over time without strict

oversight and sustained engagement. These findings align with (Rahman et al., 2022), who noted that mitigation policies often lose their effectiveness when not supported by continuous programs and adequate supervision.

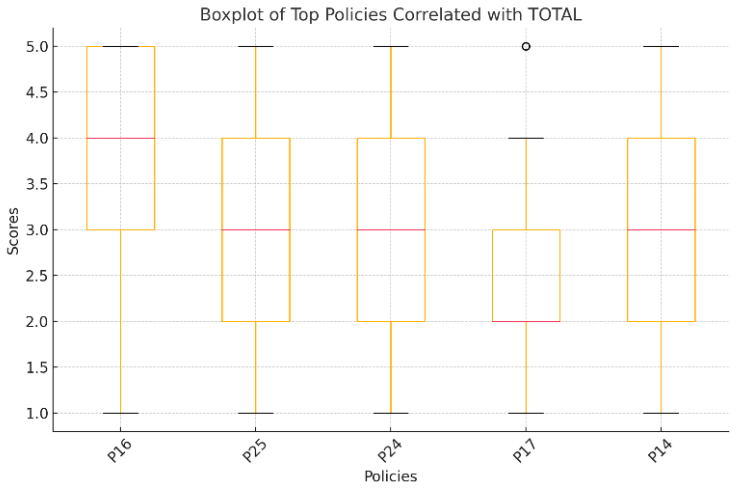
In conclusion, mitigation policies such as P4 significantly influence community participation in Palembang. This is supported by correlation and regression analyses as well as relevant literature. To enhance the effectiveness of these policies, the government should integrate modern technology with community-based approaches while ensuring consistent program implementation. This would foster a greater sense of involvement and motivation among the community to actively participate in flood risk mitigation efforts.

Influence of Community Participation on Policy Effectiveness

The boxplot (Figure 4) illustrates the distribution of TOTAL scores for policies that have the most significant influence on community participation. High distributions in policies such as P4 and P5 indicate that these policies contribute substantially to reducing flood impacts. This supports the view of (Ariadi et al., 2023), who stated that community-based policies can significantly enhance the effectiveness of disaster mitigation efforts.

Implementing collaborative governance in flood management faces several challenges, as identified by (Ilhami & Achmad, 2023), who note that there are several obstacles to its implementation, such as differences in perceptions, uneven accountability and responsibility, and limited financial and human resources. These issues are equally pertinent to Palembang's flood mitigation efforts, where similar obstacles hinder the progress of integrated flood management.

Fig 4. Boxplot of Policy Distribution with Public Participation (TOTAL)



Source: Analysis Results Using Python

The analysis results indicate that community participation, as reflected in the TOTAL variable, has a significant relationship with the success of flood mitigation policies. This is evident from the distribution of TOTAL scores, which shows that areas with higher participation levels also experience more effective flood impact reduction. For instance, research by (Ariadi et al., 2023) revealed that communities actively involved in disaster mitigation programs tend to be more aware of flood risks and take necessary preventive actions.

A study by (Pramudita & Noorratri, 2023) highlighted that collaborative programs, such as communal efforts to clean drainage systems and reduce improper waste disposal, not only improve environmental quality but also strengthen the community's collective responsibility.

Additionally, regression models show that community participation significantly contributes to the success of flood mitigation policies, with an R-squared value of 0.67. This indicates that a large portion of the variation in mitigation success can be explained by public participation levels (Rahman et al., 2022). Emphasized that the success of mitigation policies heavily relies on organized community support.

In terms of technology, community participation can be enhanced through the use of modern tools such as community-based flood monitoring applications (Nuryanti et al., 2018). Found that flood risk monitoring technologies not only increase public awareness but also enable quicker responses to potential disasters. However, challenges to community participation remain, such as inadequate education and training. Ariadi et al., (2023) suggested that systematic environmental education programs should be prioritized in mitigation policies to ensure communities have sufficient knowledge of preventive measures. In conclusion, community participation is a key factor in enhancing the effectiveness of flood mitigation policies. This is evidenced by data analysis showing a significant relationship between participation levels and policy success. To ensure sustainable participation, the government must integrate technology-based approaches with education and training programs that directly involve the community.

CONCLUSION

The study concludes that community participation plays a crucial role in enhancing the effectiveness of flood mitigation policies in Palembang. The strong correlation and regression findings demonstrate that policies such as P4, which incorporate drainage improvements and promote environmental awareness, can significantly boost public engagement. The presence of a 0.81 correlation coefficient and 0.67 R-squared value confirms that a considerable portion of successful flood mitigation is attributable to community involvement.

However, challenges remain in maintaining sustained engagement, particularly in areas with lower educational outreach and limited access to technological tools. Additionally, inconsistent policy enforcement and monitoring weaken the long-term impact of flood mitigation efforts.

Based on the findings, two key recommendations are proposed. First, the government should institutionalize community-based flood monitoring by establishing local task forces in flood-prone neighborhoods, supported by digital tools such as GIS mapping and IoT-based sensors. These groups can play a strategic role in real-time monitoring of drainage systems, early warning dissemination, and preventing improper waste disposal through data-informed interventions. Second, there should be a strengthening of education and awareness campaigns targeting both school-aged children and adults. By integrating flood mitigation themes into school curricula and community learning programs—alongside the use of interactive platforms like mobile apps or online dashboards—public awareness can be nurtured from an early age and sustained over time. Together, these efforts, when combined with technological integration, can foster a culture of environmental responsibility and ensure more resilient and responsive urban flood management in Palembang.

REFERENCE

Adventy, M. I. Y., Alfiyah Tarizah, D., & Rafinzar, R. (2024). Tren Penelitian Pada Kualitas Layanan Publik Di Dunia: Blibliometric Analysis Research Trends On Public Service Quality In The World: Blibliometric Analysis. *Borneo Akcaya*, *10*(1), 111–121. https://doi.org/https://doi.org/10.51266/jba.v10i1.397

Ariadi, H., Maryam, M., Sari, N. A. P., Rahmah, A., Fikri, M., & Raudah, S. P. (2023). Bamboo Rafting: Upaya Meningkatkan Kesadaran Masyarakat di Desa Pengaron Tentang Mitigasi Bencana

Banjir. *Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM)*, *6*(10), 4340–4348. https://doi.org/10.33024/jkpm.v6i10.12267

Arikunto, S. (2010). *Prosedur Penelitian Suatu Pendekatan Praktek*. Rineka Cipta.

Buchari, Rd. A. (2020). Manajemen Mitigasi Bencana dengan Kelembagaan Masyarakat di Daerah Rawan Bencana Kabupaten Garut Indonesia. *Sawala : Jurnal Pengabdian Masyarakat Pembangunan Sosial, Desa Dan Masyarakat*, *1*(1), 1. https://doi.org/10.24198/sawala.v1i1.25836

Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, *18*(4). https://doi.org/10.1016/j.gloenvcha.2008.07.013

Darmanto, D., Kristanti, D., Aisyah, S., & Wahyudi, H. (2024). Public Participation And Tourism Marketing In The Development of Tourism Villages In Bengkulu Province. *Journal of Governance*, *9*(1). https://doi.org/10.31506/jog.v9i1.24031

Hanggara, F. D., & Eka Putra, R. D. (2021). PURWARUPA PERANGKAT DETEKSI DINI BANJIR BERBASIS INTERNET of THINGS. *Jurnal Informatika Dan Rekayasa Elektronik*, *4*(1), 87–94. https://doi.org/10.36595/jire.v4i1.349

Idris, A. S., Hariadi, A., Yenita, Y., B, J., & Alaydrus, A. (2025). Eco-City as A Concept of Samarinda City Development After the Relocation of The National Capital. *Journal of Governance*, *10*(1). https://doi.org/10.31506/jog.v10i1.25727

Irawan, A. (2023). The Influence of Village Fund Allocation Policies on Infrastructure Development in Villages. *Journal of Governance*, *8*(4). https://doi.org/10.31506/jog.v8i4.23016

Khatimah, H., Kaidah, S., & Budiarti, L. Y. (2021). Sebagai Upaya Mitigasi Bencana Banjir. *Khatimah, H., Kaidah, S., & Budiarti, L. Y. (2021). Sebagai Upaya Mitigasi Bencana Banjir. 4.*, *4*.

Maitsa, T. R., Kuntoro, A. A., & Septiadi, D. (2021). Analisis Tren Perubahan Intensitas Hujan (Studi Kasus: Jakarta dan Bogor). *Jurnal Teknik Sipil*, *28*(2), 163–172. https://doi.org/10.5614/jts.2021.28.2.5

Moleong, L. J. (2017). *Metode Penelitian Kualitatif*. PT. Remaja Rosdakarya.

Novrial, Rahman, N. V., Affif, A. M., & Rusmalawaty. (2023). Implementing Vertical Drainage to Reduce Flood Risk at Settlement Area in Medan. *ABDIMAS TALENTA: Jurnal Pengabdian Kepada Masyarakat*, *8*(1), 357–363. https://doi.org/10.32734/abdimastalenta.v8i1.9481

Nuryanti, N., Tanesib, J. L., & Warsito, A. (2018). Pemetaan Daerah Rawan Banjir Dengan Penginderaan Jauh Dan Sistem Informasi Geografis Di Kecamatan Kupang Timur Kabupaten Kupang Provinsi Nusa Tenggara Timur. *Jurnal Fisika : Fisika Sains Dan Aplikasinya*, *3*(1), 73–79. https://doi.org/10.35508/fisa.v3i1.604

Palma, K., Jofré, D., Huenul Colicoy, S., Inzunza, S., Guerrero, N., Cabello, V., Martínez Reyes, C., & Castañeda González, J. (2025). Interdisciplinarity and local knowledge to foster community resilience in disaster risk management: A community-based educational approach on the Chilean coast. *International Journal of Disaster Risk Reduction*, *119*. https://doi.org/10.1016/j.ijdrr.2025.105281

Permatasari, I., & Putra, R. (2024). Dinamika Agenda Setting dan Formulasi Kebijakan untuk Pembangunan Berkelanjutan: Analisis Bibliometrik. *JIAP (Jurnal Ilmu Administrasi Publik)*, *12*(1), 72. https://doi.org/10.31764/jiap.v12i1.22428

Pramudita, C. D. A., & Noorratri, E. D. (2023). Gambaran Kesiapsiagaan Dan Upaya Mitigasi Masyarakat Dalam Menghadapi Bencana Banjir Di Dusun Bodeyan Desa Pondok Kecamatan Nguter Kabupaten Sukoharjo. *OVUM : Journal of Midwifery and Health Sciences*, *3*(1), 1–7. https://doi.org/10.47701/ovum.v3i1.2209

Rahman, F., Laily, N., Wulandari, A., Riana, R., Ridwan, A. M., & Yolanda, Z. W. (2022). Program Peningkatan Kapasitas Masyarakat Dalam Upaya Pengurangan Risiko Bencana Banjir Berbasis Komunitas. *SELAPARANG: Jurnal Pengabdian Masyarakat Berkemajuan*, *6*(4), 1724. https://doi.org/10.31764/jpmb.v6i4.11122

Reski, G., & Zahtamal. (2021). Perilaku Masyarakat dalam Menghadapi Dampak Kesehatan Akibat Bencana. *Jurnal Ilmu Kedokteran*, *September*, 69–78.

Sari, L., Alam, S., Surjati, I., & Aji, D. P. B. (2023). Pelatihan Perbaikan Peralatan Elektronika Rumah Tangga Untuk Warga Terdampak Banjir, Kelurahan Tanjung Duren Jakarta Barat. *Jurnal Pengabdian Masyarakat Teknik*, *5*(1), 53. https://doi.org/10.24853/jpmt.5.1.53-58

Sugiyono. (2007). *Metode Penelitian Kualitatif dan R & D*. Alfabeta.

Sugiyono. (2012). Metode Penelitian Kuantitatif, Kualitatif dan R & D.Bandung:Alfabeta. *Metode Penelitian Kuantitatif, Kualitatif Dan R & D.Bandung:Alfabeta.* https://doi.org/10.1017/CBO9781107415324.004

Sugiyono. (2016). *Metode Penilitian Admnistrasi*. Alfabeta.

Susilowati, R., Khairunnas, K., Rafinzar, R., & Noor Fadhlia, M. (2022). Analisis Collaborative Governance dalam Penyelenggaraan Musyawarah Rencana Pembangunan Desa Sungai Rambutan. *Indonesian Governance Journal : Kajian Politik-Pemerintahan*, *5*(2), 96–111. https://doi.org/10.24905/igj.v5i2.66

UNDRR. (2022). GAR 2022: Our World at Risk: Transforming governance for a resilient future. In *Global Assessment Report on Disaster Risk Reduction*.

Wulandari, M., Zulfikar, A., & Basyaruddin, B. (2022). Mitigate and Survive the Flood: Sosialisasi dan Edukasi Masyarakat untuk Mitigasi dan Langkah Tanggap Darurat Banjir di Perumahan Griya Sakinah Asri, Kelurahan Karang Joang, Kecamatan Balikpapan Utara. *Jurnal Inovasi Pengabdian Dan Pemberdayaan Masyarakat*, *2*(2), 245–252. https://doi.org/10.54082/jippm.53

Yuniartanti, R. K. (2018). Mitigasi Banjir Struktural Dan Non-struktural Untuk Daerah Aliran Sungai Rontu Di Kota Bima (Structural and Non-structural Flood Mitigation for Rontu Watershed in Bima City). *Jurnal Penelitian Sosial Dan Ekonomi Kehutanan*, *2*(2), 137–150. https://doi.org/10.20886/jppdas.2018.2.2.137-150