The Role of Civic Engagement in Sustaining Wetland Environments: Evidence from North Banjarmasin District

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Abstract

The research aims to examine how civic engagement is actualized in the daily lives of riverbank residents and how the local government supports this process. It employs a qualitative case study method with data collected through field observations and interviews involving 32 informants. Supporting literature and administrative documents were used as secondary sources, and data validation was conducted using triangulation of techniques and sources. The findings show that Civic engagement in North Banjarmasin's riverbank communities is reflected in collective action, deliberation, and communication, but faces challenges such as socioeconomic limitations, inadequate facilities, and low environmental awareness. Government programs provide a foundation, yet their impact is weakened by limited follow-up and inconsistent participation. Strengthening wetland sustainability therefore requires responsive government communication, better infrastructure, systematic follow-up, and the cultivation of collective awareness, enabling more consistent collaboration between institutions and local residents.

Keywords: *Civic Engagement; Riverbank Communities; Wetland Sustainability*

Introduction

Civic engagement is understood as actions driven by a strong sense of responsibility toward the community. It encompasses a wide range of activities, such as fostering civic awareness, participating in the development of civil society, and contributing to the common good. Civic engagement also extends to the concepts of global citizenship and interdependence among people worldwide. Through such involvement, individuals as members of their community, nation, and the global society are empowered to become agents of positive social change in the pursuit of a more democratic world (Jacoby, 2009). The factors contributing to the decline of civic engagement today include citizens' unpreparedness to actively fulfill civic duties and a lack of understanding of the importance of citizen participation for all (Kenna & Hensley, 2019). This study employs the theory of non-political civic engagement, which encompasses actions such as contacting government institutions, attending community meetings, and participating in public initiatives. Civic engagement also involves collaborative processes aimed at problem-solving (Baú, 2016; Terhorst et al., 2024).

Human behavior toward natural resources and the environment has led to significant changes in the global ecosystem, resulting in disruptions to prosperity and long-term poverty alleviation efforts. This condition underscores the necessity of sustainable development that can balance three key dimensions:

social, economic, and environmental (Griggs, Smith, Rockström, Öhman, Gaffney, Glaser, Kanie, Noble, Setffen, & Shyamsundar, 2014). Achieving sustainable development goals in developing countries requires the participation of all elements of society to generate social benefits, disseminate information, and empower communities across various aspects of life, particularly in the economic and environmental sectors (Pocock, Roy, & August, 2019).

Indonesia's environmental sustainability status remains worrisome. According to the 2024 Environmental Performance Index compiled by Yale and Columbia Universities, Indonesia ranks 163rd out of 180 countries, reflecting the country's poor performance in balancing economic development with environmental conservation. This low ranking is characteristic of nations that prioritize economic growth over environmental protection. The situation is further illustrated by the 2020 Indonesian Environmental Statistics Report released by Badan Pusat Statistik (BPS), which recorded that 57.42% of households in Indonesia dispose of domestic wastewater from activities such as bathing, laundry, and cooking directly into drains, gutters, or even rivers.

Banjarmasin, widely known as the "City of a Thousand Rivers," carries the environmental mandate to integrate ecological considerations into its urban spatial planning (Hadinata & Muchamad, 2018). The city originally developed from traditional settlements that emerged spontaneously along the riverbanks, giving rise to what is referred to as the "river culture." This river culture reflects the adaptive characteristics of riverbank communities in their physical, social, and economic lives, highlighting their dependence on the river as a source of drinking water, a place for bathing and washing, as well as a means of transportation (Michiani & Asano, 2019).

In a study conducted by Muhaimin and Jumriani (2023), it was revealed that out of 346 respondents, 166 individuals (47.98%) living along the riverbanks in Banjarmasin disposed of their liquid waste into swamps, while 180 individuals (52.02%) discharged it directly into the river. This finding is in line with Angriani, Sumarmi, Ruja, and Bachri (2018), who emphasized the crucial role of both the public sector and the community in river conservation efforts in Banjarmasin. Their research showed that although various initiatives have been undertaken by stakeholders particularly local governments and community organizations to improve river conditions, these efforts face significant challenges. The main obstacles include low public awareness of environmental conservation and the lack of synergy between the government and other parties involved in river management.

The novelty of this study lies in two main aspects. First, it focuses specifically on the setting of North Banjarmasin District, an area characterized by several riverbank settlements that have received limited scholarly attention in previous research. Second, although the theme of civic engagement has been widely explored, the specific theoretical framework adopted in this study remains rarely used in similar research. The primary aim of this research is to examine the actualization of civic engagement within the daily practices of riverbank residents and the role of local government in supporting its realization.

Method

This study employs a qualitative method, which aims to observe social issues within the community. Data were collected through interviews and in-depth information gathering from informants who provided insights related to the research theme. The type of research applied is a case study, which serves as a research strategy to thoroughly investigate a program, event, activity, process, or a group of individuals (Sugiyono, 2015).

The research was conducted in riverbank areas of Banjarmasin City, referring to Banjarmasin City Regional Regulation No. 15 of 2016 concerning efforts to improve river management. Article 3 of the regulation identifies three main areas: the Anjir waterways, Handil or Antasan, and Saka. For the Handil or Antasan area, the researcher selected Sungai Miai Subdistrict as the research site. For the Saka area, the selected locations were

Sungai Jingah Subdistrict and Surgi Mufti Subdistrict. All of these areas are administratively located within North Banjarmasin District.

Primary data in this study were obtained through direct field observations and interviews conducted by the researcher with a total of 32 informants. Secondary data were obtained from supporting literature such as books, journals, and documents related to the sub-district administration and riverbank communities in North Banjarmasin District. Triangulation was employed as a technique to test the validity of the data. Methodological triangulation was conducted by initially carrying out observations, followed by interviews. Source triangulation was also applied to verify the credibility of the data by cross-checking information obtained from multiple sources. The data were then described, categorized, and analyzed to identify common, divergent, and specific viewpoints among the various sources.

Result and Discussion

Citizen–Government Communication in North Banjarmasin District

Communication barriers in the riverbank areas of North Banjarmasin are reflected in the limited frequency of neighborhood meetings, the slow follow-up on collective agreements, and the constraints of operational funding. Low awareness among certain residents, particularly those from economically disadvantaged groups, further complicates environmental management. Common complaints voiced by the community include the lack of waste facilities, such as limited temporary disposal sites, delays in garbage collection, and poor drainage systems that often trigger flooding. Citizens also express expectations for stronger government commitment in improving environmental security and enforcing regulations against those who neglect cleanliness.

To convey their concerns, residents rely on multiple communication channels, ranging from WhatsApp groups and phone calls to direct coordination with neighborhood heads. Community meetings and monthly forums at the village level continue to serve as important spaces for dialogue. These aspirations are usually forwarded to the local government, which then coordinates with relevant technical agencies. However, responses are often delayed due to limited authority at the village level, budget restrictions, and lengthy administrative procedures that slow down problem-solving.

In response, the Banjarmasin City Government, together with village administrations, has utilized various communication platforms, including social media, citizen complaint services, public banners, official websites, and call centers. Villages follow up on community reports through field inspections and coordination with authorized agencies. Although these measures demonstrate government efforts to strengthen communication and responsiveness, effectiveness remains challenged by the need for cross-sectoral intervention and more substantial budgetary support to address environmental concerns in a sustainable manner.

Many individuals encounter significant communication barriers when interacting with peers or government institutions due to limited engagement in discussions and restricted access to communication channels (Billard, 2022; Reichert & Print, 2017). The lack of citizen integration hampers effective communication with both the government and fellow community members, while also reducing participation in social activities that do not provide direct economic benefits (Lee, 2015; Liu & Nah, 2022). Another barrier to effective communication is the infrequent use of government-provided platforms, such as official websites or mobile applications, by community members (Hampton, 2016; Zhen et al., 2019).

Government communication plays a crucial role in delivering information, providing guidance, and fostering community engagement in addressing various public issues (Edelenbos et al., 2018; Sanders, 2020). Effective government communication is essential for maintaining public trust, ensuring accountability, and enhancing the reach and impact of public services(Figenschou & Thorbjørnsrud, 2018; Goncalves et al., 2015). However, governments often face challenges in communication due to approaches that tend to be one-way,

limiting reciprocal dialogue and leaving citizens' aspirations insufficiently conveyed (Febriyanti et al., 2023; Gregory, 2019).

Community Meetings in North Banjarmasin District

Community meetings in the riverbank areas of North Banjarmasin District often focus on environmental issues such as waste management, collective efforts to maintain cleanliness, the provision of supporting facilities like trash bins and garbage carts, as well as improvements to drainage systems to reduce annual flooding. These forums are usually attended by various community elements, including village officials, neighborhood leaders, community figures, and local residents. In several cases, the Sanitation Task is also involved, particularly when discussions address waste management and environmental cleanliness.

The types of meetings are diverse, ranging from monthly coordination meetings between the village office and neighborhood leaders, regular neighborhood-level discussions, to the annual Development Planning Meeting that determines local development priorities. Discussions on environmental and social issues also frequently take place in religious gatherings such as *yasinan* or *haul*, which serve as informal spaces for dialogue. In addition, disaster preparedness activities, including fire prevention training, are occasionally organized to enhance community awareness. Participation levels are influenced by cultural, religious, and economic factors. Daily wage laborers, for instance, often struggle to attend formal meetings due to time constraints but remain active in community clean-up programs and religious activities.

The results of routine neighborhood discussions and monthly coordination meetings are later submitted to technical agencies for appropriate follow-up. Beyond this, the police have established inter-village forums to foster collaboration across several riverbank communities, enabling joint activities and discussions on cross-regional issues. These meetings not only address environmental concerns but also highlight infrastructure needs such as road repairs, the construction of embankments to mitigate tidal flooding, and administrative matters faced by residents, including land tenure issues.

Public deliberation is essential to bring together citizens and experts in an open and equal conversation to acknowledge differing perspectives, strengthen mutual understanding, and contribute to the formulation of sound policy decisions (Ott & Knopf, 2019; Pearse, 2020). Citizen discussions play a significant role in fostering empathy by creating a reflective space where individuals from diverse backgrounds can exchange ideas in depth and without coercion (Grönlund et al., 2017; Karjalainen & Rapeli, 2015). However, citizens are often reluctant to engage in deliberative forums due to constraints of time, resources, or motivation, which leads them to prefer one-way communication over active discussion (Mitozo & Marques, 2019; Niemeyer, 2020).

The government collaborates with citizens through deliberative forums to ensure that diverse perspectives are considered before major decisions are made (Bian et al., 2024; Tianguang, 2019). The government plays a crucial role in initiating and supporting deliberative processes that promote long-term interests and contribute to sound policymaking (Hammond, 2020; Setälä, 2025). Active government participation in public discussions is necessary to strengthen democratic engagement, foster mutual understanding, and ensure that policies reflect the values of the citizens they serve (de Vries, 2020; Bianco & Princen, 2019).

Collaborative Problem-Solving in North Banjarmasin District

Collaborative problem-solving in North Banjarmasin District is reflected in community practices that emphasize collective responsibility for the local environment. Residents frequently engage in *gotong royong* activities such as river cleaning and the maintenance of public facilities. In some neighborhoods, partnerships have also been established with government agencies and universities, which not only support environmental preservation but also provide educational programs that strengthen local awareness. Religious forums, such as *yasinan* gatherings, further encourage participation by drawing on strong social ties, while areas with tourism

value, such as Sasirangan, demonstrate higher levels of engagement due to economic incentives and the need to preserve the area's image.

Sustaining these collaborative efforts is not without challenges. A lack of awareness among certain residents, often compounded by limited time, reduces the consistency of participation. Insufficient facilities and financial constraints also undermine the durability of initiatives, while many programs remain dependent on the leadership of a few influential individuals. Environmental issues further complicate community efforts, with waste management emerging as the most pressing concern in riverbank areas. Tidal flows bring additional debris that worsens sanitation conditions, while road damage and frequent flooding increase the difficulties faced by local communities in managing their environment effectively.

The Banjarmasin City Government has attempted to strengthen collaborative problem-solving by involving local leaders and residents in structured initiatives. Village administrations organize regular activities such as *Jumat Bersih* (Clean Friday) and deliberative forums that provide spaces for coordination and dialogue. Complaints are formally communicated to relevant technical agencies for follow-up, while facilities for waste management and infrastructure improvements are gradually introduced. Additional measures include neighborhood-based waste fee systems and periodic *gotong royong* activities that involve both residents and officials. Nonetheless, limited funding, recurring tidal floods, and leadership turnover at the village level continue to hinder the long-term sustainability of these collaborative solutions.

Community cooperation plays a vital role in problem-solving by enabling residents to share resources and provide mutual support, thereby generating social benefits and meeting collective needs (Pret & Carter, 2017; Southby & Gamsu, 2018). Such cooperation is essential for addressing social challenges, as it ensures that all parties have the opportunity to voice their perspectives, fostering transparency, accountability, and shared responsibility (Calvo & Sclater, 2021; Milam & Heath, 2014). Collaboration among residents often faces obstacles due to limited awareness, inadequate infrastructure, and difficulties in identifying effective approaches to address problems (Shulla et al., 2020; Zilliox & Smith, 2018).

The government plays a crucial role in collaborating with citizens to encourage responsible actions and jointly address various environmental and social issues (Brudney et al., 2018; Chen & Ye, 2022). Collaboration between government and citizens is essential for effectively tackling public challenges and ensuring the delivery of more responsive and sustainable services that align with community needs (Cheng, 2019; Cochrane, 2021). Government–citizen cooperation often encounters difficulties due to unclear roles, insufficient communication and coordination, as well as limited supporting resources (Henderson, 2018; Hendriks et al., 2015).

Conclusion

The findings demonstrate that civic engagement in the riverbank communities of North Banjarmasin is reflected in collective action, community deliberation, and varied forms of communication, though its sustainability remains limited by socioeconomic challenges, inadequate facilities, and low environmental awareness. Government initiatives, including programs and communication platforms, provide an important foundation, yet their impact is constrained by weak follow-up and inconsistent citizen participation. These conditions affirm that sustaining wetland environments depends not only on governmental intervention but also on the active, ongoing involvement of local residents as ecological citizens.

Strengthening civic engagement in sustaining wetland environments requires more responsive government communication, systematic follow-up mechanisms from community forums, and improved infrastructure that supports citizen participation. In addition, cultivating collective awareness through education, personal outreach, and locally grounded solutions can enhance the sense of shared responsibility. By reinforcing both institutional support and community-driven initiatives, collaboration between government and residents can become more consistent and impactful in addressing the environmental challenges of North Banjarmasin's wetlands.

References

Angriani, P., Sumarmi, Ruja, I. N., & Bachri, S. (2018). River management: The importance of the roles of the public sector and community in river preservation in Banjarmasin (A case study of the Kuin River, Banjarmasin, South Kalimantan – Indonesia). *Sustainable Cities and Society*, *43*, 11–20. https://doi.org/10.1016/j.scs.2018.08.004.

Baú, V. (2016). Citizen engagement in peacebuilding: A communication for development approach to rebuilding peace from the bottom-up. *Progress in Development Studies*, *16*(4), 348–360. https://doi.org/10.1177/1464993416663052.

Bian, Q., Xin, L., & Li, Y. (2024). Towards a more globally inclusive academic discussion on local government: is more attention to Asian countries the answer? *Local Government Studies*, *50*(6), 1153–1165. https://doi.org/10.1080/03003930.2024.2407904.

Billard, T. J. (2022). Together We Rise: The Role of Communication and Community Connectedness in Transgender Citizens' Civic Engagement in the United States. *Mass Communication and Society*, *25*(3), 335–360. https://doi.org/10.1080/15205436.2021.1954197.

Brudney, J. L., Prentice, C. R., & Harris, J. L. (2018). Beyond the Comfort Zone? County Government Collaboration with Private-Sector Organizations to Deliver Services. *International Journal of Public Administration*, *41*(16), 1374–1384. https://doi.org/10.1080/01900692.2017.1390582.

Calvo, M., & Sclater, M. (2021). Creating Spaces for Collaboration in Community Co-design. *International Journal of Art and Design Education*, *40*(1), 232–250. https://doi.org/10.1111/jade.12349.

Chen, P. K., & Ye, Y. (2022). Influence of creating an oligopoly through government intervention to improve partner collaboration intentions in the context of green supply chains. *Environmental Science and Pollution Research*, *29*(5), 6433–6448. https://doi.org/10.1007/s11356-021-16064-x.

Cheng, Y. (Daniel). (2019). Governing Government-Nonprofit Partnerships: Linking Governance Mechanisms to Collaboration Stages. *Public Performance and Management Review*, *42*(1), 190–212. https://doi.org/10.1080/15309576.2018.1489294.

Cochrane, C. (2021). Consensus Government and Collaboration: The COVID-19 Pandemic in Canada's North and the Role Partnership Played in Protecting the Health and Well-being of Residents. *State and Local Government Review*, *53*(2), 103–105. https://doi.org/10.1177/0160323X211027865.

de Vries, S. (2020). Place identity and major project deliberation: the contribution of local governments in Australia. *Australian Geographer*, *0*(0), 399–419. https://doi.org/10.1080/00049182.2020.1788269.

Edelenbos, J., van Meerkerk, I., & Schenk, T. (2018). The Evolution of Community Self-Organization in Interaction With Government Institutions: Cross-Case Insights From Three Countries. *American Review of Public Administration*, *48*(1), 52–66. https://doi.org/10.1177/0275074016651142.

Febriyanti, D., Widianingsih, I., Sumaryana, A., & Buchari, R. A. (2023). Information Communication Technology (ICT) on Palembang city government, Indonesia: Performance measurement for great digital governance. *Cogent Social Sciences*, *9*(2). https://doi.org/10.1080/23311886.2023.2269710.

Figenschou, T. U., & Thorbjørnsrud, K. (2018). Mediated Agency, Blame Avoidance and Institutional Responsibility: Government Communication in a Personalised Media Landscape. *Scandinavian Political Studies*, *41*(2), 210–232. https://doi.org/10.1111/1467-9477.12117.

Goncalves, J., Liu, Y., Xiao, B., Chaudhry, S., Hosio, S., & Kostakos, V. (2015). Increasing the reach of government social media: A case study in modeling government-citizen interaction on Facebook. *Policy and Internet*, *7*(1), 80–102. https://doi.org/10.1002/poi3.81.

Gregory, A. (2019). UK Government Communication: The Cameron years and their ongoing legacy. *Public Relations Review*, *45*(2), 202–216. https://doi.org/10.1016/j.pubrev.2018.08.003.

Griggs, D., Smith, M. S., Rockström, J., Öhman, M. C., Gaffney, O., Glaser, G., Kanie, N., Noble, I., Steffen, W., & Shyamsundar, P. (2014). An integrated framework for sustainable development goals. *Ecology and Society*, *19*(4). https://doi.org/10.5751/ES-07082-190449.

Grönlund, K., Herne, K., & Setälä, M. (2017). Empathy in a Citizen Deliberation Experiment. *Scandinavian Political Studies*, *40*(4), 457–480. https://doi.org/10.1111/1467-9477.12103.

Hadinata, I. Y., & Muchamad, B. N. (2018). Studi Penyusunan dan Penentuan Sempadan Sungai di Kota Banjarmasin. *Jurnal Kebijakan Pembangunan*, *13*(1), 1–7. https://www.jkpjournal.com/index.php/menu/article/view/86.

Hammond, M. (2020). Democratic deliberation for sustainability transformations: between constructiveness and disruption. *Sustainability: Science, Practice, and Policy*, *16*(1), 220–230. https://doi.org/10.1080/15487733.2020.1814588.

Hampton, K. N. (2016). Persistent and Pervasive Community: New Communication Technologies and the Future of Community. *American Behavioral Scientist*, *60*(1), 101–124. https://doi.org/10.1177/0002764215601714.

Henderson, S. (2018). Competitive sub-metropolitan regionalism: Local government collaboration and advocacy in northern Melbourne, Australia. *Urban Studies*, *55*(13), 2863–2885. https://doi.org/10.1177/0042098017726737.

Hendriks, A. M., Jansen, M. W. J., Gubbels, J. S., De Vries, N. K., Molleman, G., & Kremers, S. P. J. (2015). Local government officials[U+05F3] views on intersectoral collaboration within their organization - A qualitative exploration. *Health Policy and Technology*, *4*(1), 47–57. https://doi.org/10.1016/j.hlpt.2014.10.013.

Jacoby, B. (2009). *Civic engagement in higher education: concepts and practices*. Jossey-Bass.

Karjalainen, M., & Rapeli, L. (2015). Who will not deliberate? Attrition in a multi-stage citizen deliberation experiment. *Quality and Quantity*, *49*(1), 407–422. https://doi.org/10.1007/s11135-014-9993-y.

Kenna, J. L., & Hensley, M. A. (2019). Utilizing Social Media to Promote Civic Engagement in the Social Studies Classroom. *The Social Studies*, *110*(2), 86–94. https://doi.org/10.1080/00377996.2018.1524360.

Lee, F. L. F. (2015). Social movement as civic education: communication activities and understanding of civil disobedience in the Umbrella Movement. *Chinese Journal of Communication*, *8*(4), 393–411. https://doi.org/10.1080/17544750.2015.1057192.

Liu, W., & Nah, S. (2022). Community Attachment, Communication Mediation, and Nonprofit Participation: An Integrated Community Communication Approach. *Voluntas*, *33*(2), 269–283. https://doi.org/10.1007/s11266-020-00276-9.

Lo Bianco, S., & Princen, S. B. M. (2019). How strong is deliberation in EU intergovernmental decision making? Deliberation in the field of Justice and Home Affairs. *Journal of European Integration*, *41*(6), 729–744. https://doi.org/10.1080/07036337.2019.1587419.

Michiani, M. V., & Asano, J. (2019). Physical upgrading plan for slum riverside settlement in traditional area: A case study in Kuin Utara, Banjarmasin, Indonesia. *Frontiers of Architectural Research*, *8*(3), 378–395. https://doi.org/10.1016/j.foar.2019.03.005.

Milam, J. M. D., & Heath, R. G. (2014). Participative Democracy and Voice: Rethinking Community Collaboration Beyond Neutral Structures. *Journal of Applied Communication Research*, *42*(4), 366–386. https://doi.org/10.1080/00909882.2014.911944.

Mitozo, I., & Marques, F. P. J. (2019). Context Matters! Looking Beyond Platform Structure to Understand Citizen Deliberation on Brazil's Portal e-Democracia. *Policy and Internet*, *11*(3), 370–390. https://doi.org/10.1002/poi3.196.

Muhaimin, M., & Jumriani, J. (2023). Analisis Permasalahan Sampah Rumah Tangga di Bantaran Sungai Kota Banjarmasin. *ASANKA : Journal of Social Science and Education*, *4*(1), 34–43. https://doi.org/10.21154/asanka.v4i1.5151.

Niemeyer, S. (2020). Deliberation and ecological democracy: from citizen to global system. *Journal of Environmental Policy and Planning*, *22*(1), 16–29. https://doi.org/10.1080/1523908X.2019.1661232.

Ott, M. A., & Knopf, A. S. (2019). Avoiding a Tyranny of the Majority: Public Deliberation as Citizen Science, Sensitive Issues, and Vulnerable Populations. *American Journal of Bioethics*, *19*(8), 28–31. https://doi.org/10.1080/15265161.2019.1619870.

Pearse, H. (2020). Deliberation, Citizen Science and Covid-19. *Political Quarterly*, *91*(3), 571–577. https://doi.org/10.1111/1467-923X.12869.

Pocock, M. J. O., Roy, H. E., & August, T. (2019). Developing the global potential of citizen science: Assessing opportunities that benefit people, society and the environment in East Africa. *Journal of Applied Ecology*, *56*(2), 274–281. https://doi.org/10.1111/1365-2664.13279.

Pret, T., & Carter, S. (2017). The importance of 'fitting in': collaboration and social value creation in response to community norms and expectations. *Entrepreneurship and Regional Development*, *29*(7–8), 639–667. https://doi.org/10.1080/08985626.2017.1328903.

Reichert, F., & Print, M. (2017). Mediated and moderated effects of political communication on civic participation. *Information Communication and Society*, *20*(8), 1162–1184. https://doi.org/10.1080/1369118X.2016.1218524.

Sanders, K. B. (2020). British government communication during the 2020 COVID-19 pandemic: learning from high reliability organizations. *Church, Communication and Culture*, *5*(3), 356–377. https://doi.org/10.1080/23753234.2020.1824582.

Setälä, M. (2025). Inclusive deliberation for future-regarding governance: potentials and pitfalls. *Policy Studies*, 1–19. https://doi.org/10.1080/01442872.2025.2454488.

Shulla, K., Leal Filho, W., Sommer, J. H., Lange Salvia, A., & Borgemeister, C. (2020). Channels of collaboration for citizen science and the sustainable development goals. *Journal of Cleaner Production*, *264*, 121735. https://doi.org/10.1016/j.jclepro.2020.121735.

Southby, K., & Gamsu, M. (2018). Factors affecting general practice collaboration with voluntary and community sector organisations. *Health and Social Care in the Community*, *26*(3), e360–e369. https://doi.org/10.1111/hsc.12538.

Sugiyono. (2015). *Metode Penelitian Kuantitatif, Kualitatif Dan Kombinasi (Mixed Methods)*. Alfabeta.

Terhorst, C., Rommes, E., Bogert, K. van den, & Verharen, L. (2024). The everyday civic engagement of social work students. *Social Work Education*, *00*(00), 1–17. https://doi.org/10.1080/02615479.2024.2308681.

Tianguang, M. (2019). Responsive Government: The Diversity and Institutional Performance of Online Political Deliberation Systems. *Social Sciences in China*, *40*(4), 148–172. https://doi.org/10.1080/02529203.2019.1674041.

Zhen, F., Qin, X., Jiang, Y., & Chen, H. (2019). Effects of Community Community Communication Technology (ICT) Usage on Community Satisfaction: Case Study in Nanjing, China. *Chinese Geographical Science*, *29*(5), 834–847. https://doi.org/10.1007/s11769-019-1072-9.

Zilliox, S., & Smith, J. M. (2018). Colorado's Fracking Debates: Citizen Science, Conflict and Collaboration. *Science as Culture*, *27*(2), 221–241. https://doi.org/10.1080/09505431.2018.1425384.

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