

THE EFFECTIVENESS OF INFRASTRUCTURE DEVELOPMENT FOR WASTEWATER SERVICE IN DECENTRALIZED INDONESIA: CASE OF BANDUNG MUNICIPALITY

Diny Waskitawati¹, Ida Widianingsih², Budhi Gunawan³

Abstract: This paper discusses the effectiveness of infrastructure development for wastewater service in decentralized Indonesia, particularly in Bandung municipality as one of the biggest cities in the country where sanitation problems persist. Although wastewater service coverage in Bandung municipality shows a gradual improvement from 2010 to 2016, the research identifies the ineffectiveness of wastewater infrastructure development. Qualitative analyses revealed that the wastewater infrastructure development in Bandung municipality funds came from two different sources (local budget and internal donor support). We would argue that in the case of wastewater infrastructure development, the same amount of money shares different processes and results. Compared to AusAID water and sanitation program, in term of value of money, the one designed and managed by the Municipality Water Supply Agency (PDAMs) is less effective. It is concluded the newly developed decentralization laws in Indonesia could not ensure the effectiveness of public service delivery due to the absence of sound governance at local level.

Keywords: program effectiveness, infrastructure development, wastewater service, decentralization, public service delivery.

INTRODUCTION

More than ten years of the introduction of new Indonesian decentralization laws No. 22/1999 and 25/2009, the transition towards a more democratic country remains challenging. Many argue that the “big bang” process of decentralization could contribute to the problematic implementation of the laws which led to two significant revisions of the decentralization laws (in 2004 and in 2008) (Erb, Priyambudi, & Faucher, 2005, p. 21; Widianingsih, 2006; Widianingsih & Morrell, 2007; Widianingsih, 2015). Apart from continuous debates on the Post-Suharto decentralization laws, to some extent the laws give more power to local government in managing more effective and deliberative local development.

¹ Post-Graduate Program Public Administration, Faculty of Social and Political Sciences Universitas Padjadjaran Bandung.

² Public Administration Department, Faculty of Social and Political Sciences Universitas Padjadjaran Bandung

³ Anthropology Department, Faculty of Social and Political Sciences Universitas Padjadjaran Bandung

Decentralization tends to explore the process of local democratization and improve community participation for infrastructure development. Though the dynamic of Indonesian decentralization was also highly influenced by International Donor agendas on good governance (Widianingsih 2006; Widianingsih & Morrell 2007; Widianingsih 2015; Widianingsih, McLaren, & McIntyre-Mills 2017). In terms of infrastructure development in Indonesia, many International donors has been actively involved through various program interventions accross different local governments.

Moreover, as stated by Zhang, Zhu & Hou (2016), Smoke (2015) and Lewis (2016), the positive aims of decentralization highlights the improvement of public service delivery for society. Decentralization encourages local governments to be more flexible in managing their regions for more qualified public service delivery. In Indonesian context, some studies revealed that instead of making faster improvement of public services, reverse impact occured in local public service deliveries. This could be related to the readiness of changing local government system, limited participation of society, and limitless of political intervention.

As this paper focuses on discussies the challenges of infrastructure development in decentralized Indonesia by bringing wastewater management case in Bandung municipality. Research conducted by (Horn, 2016) stated that more that 70% out of 422 Municipality Water Supply Agency (PDAMs) in Indonesia underperform due to lack of capacity, less professional management, and local political dynamics. Furthermore, the World Bank Water and Sanitation Program (WSP) evaluation report in 2015 found that in the last two decades, there are a gradual increase of water services in rural and urban areas. This partly related to “a well-functioning service delivery pathway” with a stronger policy and istitutional frameworks. However, the evaluation report also revealed the unsupported financial system often hinder the succesful implementation of the program (World Bank Water and Sanitation Program, 2015).

In the case of wastewater management in Bandung Municipaliy Water Utility Service (*Perusahaan Daerah Air Minum, PDAM*), the Post-Suharto Indonesia decentralization often challenged by the fragile administrative system and inefficient resources uses and allocations. According to local regulation no. 15/2009, the *PDAM* has an authority to manage wastewater affairs in Bandung municipality. By comparing two different funding sources, the research found different results. In the case of Waste water infrastructure development, the local funded program performance is less efficient compared the one using external support. It concludes that local autonomy and democracy should be accompanied by governance and administrative reform for better *performance*.

METHODS

This research is conducted with qualitative research. It revealed the failure of local government to run infrastructure project efficiently compared with AusAID project. It aims to describe, examine, and appraise the effectiveness of wastewater infrastructure project by comparing local project with AusAID project. The researcher collected some data by observing, interviewing stakeholders, and collecting related documents. Furthermore, literature review process is also important activity to build some arguments in this paper.

RESULTS

Implementation of decentralization in Indonesia has been the focus of considerable government attention. Hence, law 32/2004 appears to clarify law 22/1999 for local governments. Under law 32/2004, Indonesian government is divided into three levels: central government, provincial government, and municipal/ regency government.

Furthermore, central government gives authority to local government for developing many local infrastructure developments such as wastewater management. Decentralization means both reversing the concentration of administration at a single center and conferring powers of local government (Smith, 1985, p. 1).

Concept of decentralization is about distribution of power and authority from the highest to lowest government level (Smith, 1985, p. 1). Decentralization involves different level of government combining with different functions. One of an example is Indonesia: central government doesn't give all authorities for local government according to law 32/2004. It proves that every level of government has its functions. Even though a country implements decentralization government, central government still centralized some of authorities.

Implementation of decentralization has given opportunity for local government to provide public service delivery (Lewis, 2015) (Dickovick, 2014). In this paper, PDAM has authority to provide wastewater service in Bandung municipality. PDAM has to manage wastewater affairs from planning to evaluation process. Wastewater management is one of several critical issues in Indonesia. In 2010, central government decentralized a sanitation development program named as *Percepatan Pembangunan Sanitasi Permukiman* (PPSP) to some big cities in Indonesia like Bandung municipality. It focuses to address some sanitation problems including wastewater management.

Before PPSP implementation, wastewater service coverage in Bandung municipality was 58% (Table 1). It means that PDAM hasn't provided wastewater service successfully. Almost half of population in Bandung municipality doesn't get wastewater service. By implementing PPSP, the provision of wastewater service has to increase up to 70% in 2015. Table 1 presents that PDAM couldn't achieve 70% of wastewater service coverage in 2015. Furthermore, according to Indonesian National Medium Term Development Plan 2015-2019, wastewater service coverage has to be increased up to 100% in 2019.

Table 1. Bandung Wastewater Service Coverage

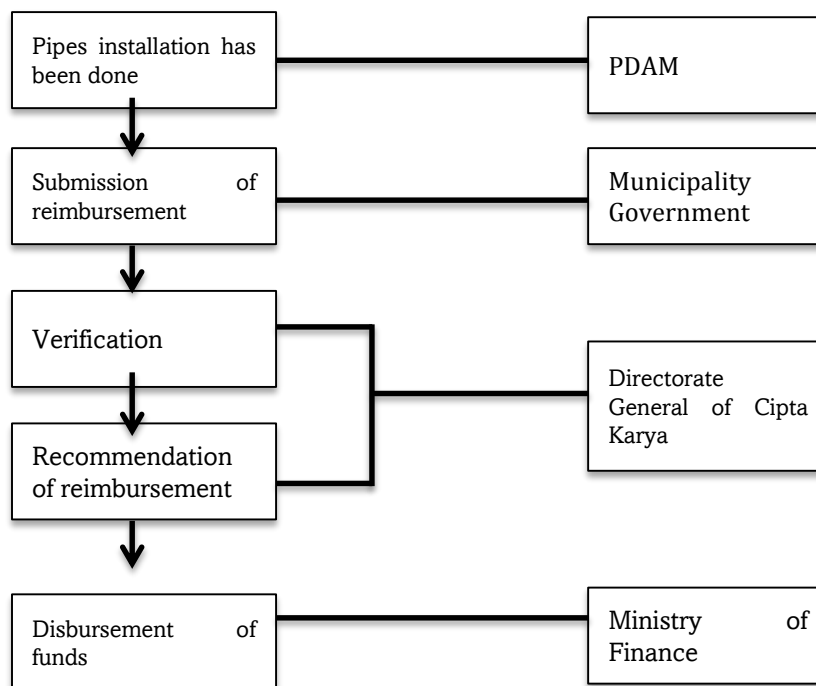
Year	Wastewater Service Coverage
2010	58%
2011	60.8%
2012	62%
2013	64%
2014	65.9%
2015	67%
2016	69%

Source: PDAM annual reports, 2016

In 2011, Australian Agency for International Development (AusAID) supported Indonesian sanitation development through *Australia-Indonesia Infrastructure Grants for Sanitation* (sAIIG) program. It provided grants for local government to increase wastewater service coverage. Although it was for local development, central government had some authorities in this program. Directorate General of Cipta Karya and Ministry of Finance were representatives of central government in this program (Figure 1.). It shows how central government tries to shift from rowing to steering government concept. In steering concept, central government is not involved in delivering public service directly (Denhardt & Denhardt, 2007, p. 144). In this case, it was involved in evaluating performance by verifying implementation of project.

Responding sAIIG program, PDAM proposed a development plan proposal for installing wastewater pipes in Bandung municipality. Based on Table 1, PDAM needed more efforts for providing wastewater service in 2010. PDAM offered 1.500 pipes installation for low-income communities and required 7.5 billion rupiahs for installing

wastewater pipes. As the acceptance of proposal, PDAM had to install 1.500 wastewater pipes for low-income communities in 2011. The program was running successfully and increasing 2.8% of wastewater service coverage in Bandung municipality. However, the target of wastewater service coverage hadn't been achieved yet in 2011.



Source: Directorate General of Cipta Karya, 2012

Figure 1. Authority of Indonesian government in sAIG program

In 2012, PDAM increased wastewater service coverage without any assistance of AusAID. Enhancement of wastewater service coverage from 2011 to 2012 was 1.2% (Table 2). It was because PDAM reduced budget allocation for installing wastewater pipes. In 2011, PDAM allocated 7.5 billion rupiahs for increasing wastewater service coverage up to 2.8%. Then in 2012, PDAM allocated 4 billion rupiahs for increasing wastewater service coverage up to 1.2% (Table 2).

Table 2. Budget Allocation for Wastewater Service Project

Year	Enhancement Wastewater Service Coverage	Budget Allocation
2010-2011	2.8%	7.5 billion rupiahs
2011-2012	1.2%	4 billion rupiahs
2012-2013	2%	11 billion rupiahs
2013-2014	1.9%	13 billion rupiahs

Source: PDAM annual reports, 2014

Table 2 shows that AusAID wastewater management project is more efficient than local government project. For increasing wastewater coverage up to 1.2%, PDAM should need 3.2 billion rupiahs. Instead of that, PDAM allocated 4 billion rupiahs in 2011-2012. Inefficiency also happened in 2012-2013 and 2013-2014 project. In 2012-2013, PDAM

allocated 11 billion rupiahs for increasing 2% wastewater service (Table 2). Although in 2010-2011, PDAM allocated only 7.5 billion rupiahs to increase 2.8% of wastewater service coverage for AusAID wastewater management project. Emergence of inefficiency project is shown by comparing AusAID wastewater management project and local government project. Through AusAID project, PDAM increased wastewater service coverage efficiently.

This project reveals the failure of decentralization implementation obviously. Implementation of decentralization would lead to greater efficiency in public service delivery (Snyder, Ludi, Cullen, Tucker, Zeleke, & Duncan, 2014). However, it didn't happen for wastewater service delivery in Bandung municipality. Failure of local government project might be influenced by some factors. Basically, two wastewater management projects are the same. And the difference of those projects is source of funds. Even though, AusAID funded this project in 2010-2011, some of management processes –planning, organizing, and actuating- are implemented by PDAM.

DISCUSSION

Implementation of AusAID wastewater management project was according to PDAM development proposal for increasing wastewater service in Bandung municipality. It means that PDAM conducted all of wastewater development plans including budget allocation for this project. Basically, AusAID had two roles as donor and supervisor in this project. Even though AusAID funded wastewater management project, local government still had flexibility for managing this project. Within AusAID project, the flexibility of local government performed in a good performance. But, it showed an inefficiently project within local government project.

The emergence of local government flexibility could not be resisted in decentralization government. Decentralization gives participation opportunities for responding local needs to local government (Grindle, 2007, p. 167). Hence, it might increase the efficiency of government programs. In this case, it leads to an efficient wastewater management program within AusAID projects not local government project. The emergence of AusAID produces a better performance of local government flexibility in this project.

There are some significant differences of these projects. Those are goal setting, controlling, and funding systems. In AusAID project, the goal is very specific –PDAM had to install 1.500 wastewater pipes in 2010-2011. Comparing with local government project, it was determined for five years –wastewater service coverage has to increase up to 70% in 2015. There was no specific target to be achieved per year. However, an organization needs to set a specific goal because it leads to better performance (Walker & Andrews, 2013). It also makes organization performance assessment clearer.

In local government project, PDAM did not set a specific goal because wastewater management is not a priority to be achieved. According to local regulation 15/2009, PDAM has authorities for wastewater and water management in Bandung municipality. And somehow, water management is PDAM priority. For these several years, PDAM concerns to increase water service delivery. Because of that, budget allocation for water management is much more than wastewater management. PDAM also initiates some programs for increasing water service delivery. And those have specific targets to be achieved.

Decentralization implementation in Indonesia aims to improve public service delivery. So that, Indonesia needs public sector reform. It requires some key points, such as goal setting, success determination and performance measurement (Brinkerhoff & Brinkerhoff, 2015). By setting a specific goal, success determination and performance

measurement could be determined easier. A clear performance measurement helps organization to observe some related factors in program implementation (Poister, 2003, p. xvi). Furthermore, organization could identify strength and weakness of program implementation (Wagner III & Hollenbeck, 2010, p. 16). So, organization could prepare to face challenges in future by learning from past experience.

Basically, all of activities in organization will be driven by organization goals. Hence, specific goals might help organization to arrange activities clearly. Furthermore, organization goals should be realistic (Farazmand, 2001, p. 554). Organizational goal is the first step to determine organizational change. Hence, public organization that avoids to set specific goals will not implement good governance successfully.

In AusAID project, the funding system is reimbursement. So that, PDAM had to finish installing wastewater pipes before submission the reimbursement (Figure 1). From this project, PDAM had installed 1.500 wastewater pipes in 2010-2011. PDAM obviously achieved project target successfully. Reimbursement funding system might influence implementation of wastewater management project. Because PDAM only would be paid for wastewater pipes that had been installed. It means that if PDAM installs 1.300 wastewater pipes, then PDAM will be paid only for installing 1.300 wastewater pipes. Furthermore, AusAID project funding system was based on PDAM achievement.

Figure 1 also shows the reimbursement process of AusAID project. Even though, wastewater pipes installed, Directorate General of Cipta Karya would verify it before give recommendation of reimbursement to ministry of finance. In other words, AusAID project has some steps to be trough before the disbursement of funds. Other than that, considering development plan proposal and its implementation was also implemented in AusAID project. Local government was forced to be more accountable within this project. And basically, good governance requires local government accountability to improve public service delivery (Aoki, 2015).

This paper emphasizes some topics in good governance within public administration perspective. Good governance considers some topics such as accountability, transparency, effectiveness, and efficiency (Gisselquist & Resnick, 2014). Accountability of local government would lead to better performance. It is also a focus of donors since the late 1990 (Repucci, 2014). Hence, within AusAID project forced local government to be more accountable. Accountability comes to be a critical issue in government reform that has to be considered. It could be created by implementation of reward and punishment system in public organization (Hong, 2016). Which is based on employee performance.

In local government project, the funding system is very different. AusAID project offered reimbursement system that was based on the achievement. Instead of considering achievement, local government offered to fund the project at the beginning. It is obviously the opposite of AusAID funding system. Instead of funding project after PDAM finished installing wastewater pipes, local government funded project even when the project had not done yet. In this case, it influences local government performance. Since there was no specific goal to be achieved, then local government funded project at the beginning, these made it further from good governance.

Reimbursement system might be the corruption control in a project. So that, negative behaviors from bureaucrats could be handled. Fighting corruption is one of aims of foreign aid (Frot, 2014). Hence, AusAID implemented reimbursement system for wastewater project. Furthermore, donor policies might influence the effectiveness of aid project (Dalgaard, 2008). Even in this case, AusAID project run effectively, PDAM could achieve the target for installing 1.500 wastewater pipes in Bandung municipality. It proves that AusAID policies –reimbursement system and goal setting- led to an effective wastewater project.

Other than that, this paper also proves that reimbursement funding system made wastewater project run efficiently. Efficiency is also an important topic in good governance. The aim of decentralization implementation is making public service delivery more efficient (Saito, 2008, p. 32). Unfortunately, this project revealed that local government project run inefficiently. Table 2 proves that budget allocation of AusAID project is more efficient.

Basically, allocating resources has to be based on results or achievements of projects (Poister, 2003, p. 11). In this case, PDAM has to allocate resources for increasing wastewater service delivery per year, but PDAM does not have a specific target to be achieved per year. Hence, PDAM could not allocate resources clearly. It might be the reason of local government failure for wastewater project. If there is no specific target, it will make allocating resources unclear. Furthermore, it will drive to inefficient project.

Moreover, controlling system was the next difference from wastewater project. Within AusAID project, there was a personal consultant from Indonesia Infrastructure Initiative (IndII) Facility. It had authority to control all of activities during AusAID wastewater project. It ensured AusAID project running effectively. Controlling system is also an important part to create good governance (Mcnabb, 2009, p. 193). The degree of control might influence all of activities in organization (Osborne & Brown, 2005, p. 84). Hence, within AusAID project, controlling system came to be critical topic.

Control of institution is needed to avoid corruption probability in project. Controlling model within AusAID project was effective. At least for wastewater project, it helped project to run efficiently. Even though, it also showed an immature bureaucrat of local government. Without any assistance of personal consultant during the project, efficiency and effectiveness of wastewater project might not be created. Immature bureaucrat is one of several reasons for decentralization failure in Indonesia. In public service delivery reform, immature bureaucrat is a challenge that could not be avoided. And controlling system might help organization to face that challenge.

In contrast for local government project, there was no personal consultant. The controlling system was authority of local legislature (DPRD) Bandung. It is typical of government organization to be controlled by legislative (Mcnabb, 2009, p. 94). All of PDAM activities including budget allocation are according to DPRD regulation. Hence, PDAM needs DPRD approval for water and wastewater development plan in Bandung municipality. For local government project, PDAM has flexibility to manage wastewater and water development plan in Bandung municipality. However, the final decision is still involving DPRD decision.

Controlling model for local government project is making annual reports to DPRD. In this case, that model did not drive to effective and efficient project successfully. Models of AusAID project and local government project are literally different. As mentioned before, the funding system AusAID project was reimbursement system. It could be one of controlling model that had been chosen by AusAID to control a project. Within AusAID project, controlling system was bigger than annual reports. It also involved central government (Directorate General of Cipta Karya) in case of verifying the project. It might force local government to be more accountable and transparent.

Implementing decentralization means that central government gives flexibility for local government to deliver public service. But this paper shows that decentralization implementation still needs control of central government especially for emergence of immature bureaucrats case. Flexibility is given for making public service delivery efficiently. But for this case, flexibility did not work as well as the expectation. This paper reveals that instead of making project more efficient, flexibility drove to inefficient wastewater project. Even though, Indonesia implements decentralization government, central government control of local government activities is still needed.

Controlling system will determine a transparency of local government (Lindert & Verkoren, 2010, p. 21). Which is needed to provide good governance (Hadiz, 2010, pp. 17-18). Aim of decentralization implementation in Indonesia is driving to greater accountability and transparency of local government. In this case, creating those things require a supportive controlling system. Controlling system aims to monitor and make correction of project activities (Wagner III & Hollenbeck, 2010, p. 16). Comparing AusAID project with local government project shows that there is an immature bureaucrat in Bandung municipality. Hence, choosing best controlling system is needed.

CONCLUSION AND RECOMMENDATION

Basically, the aim of infrastructure development is improving public service delivery for society. This paper reveals that infrastructure development in decentralization era might face some challenges such as immature bureaucrats. Furthermore, it identifies some factor for addressing those problems by learning from wastewater project in Bandung municipality such as setting specific goals to be achieved, because it will help to determine performance measurement and budget allocation clearly; funding system based on result, it will increase accountability of local government. It also could be corruption control within a project; tight controlling system, it will lead to transparency government. Involvement of central government is also needed.

In this case, those things –setting specific goals, funding system based on result, tight controlling system- might influence the achievement of project. Moreover, those increased efficiency and effectiveness of AusAID project. This paper suggests some changes for running local government project efficiently. Administrative system within AusAID project reveals an efficient project. Then, if local government adopts AusAID administrative system, it might lead to an efficient project of local government.

REFERENCES

- Aoki, N. (2015). Let's Get Public Administration Right, but in What Sequence?: Lessons from Japan and Singapore. *Public Administration and Development*, 206-218.
- Brinkerhoff, D. W., & Brinkerhoff, J. W. (2015). Public Sector Management Reform in Developing Countries: Perspectives Beyond NPM Orthodoxy. *Public Administration and Development*, 222-237.
- Dalgaard, C. J. (2008). Donor policy rules and aid effectiveness. *Journal of Economic Dynamics & Control*, 1895-1920.
- Denhardt, J. V., & Denhardt, R. B. (2007). *The New Public Service*. New York: M.E.Sharpe .
- Dickovick, J. T. (2014). Foreign Aid and Decentralization: Limitation on Impact in Autonomy and Responsiveness. *Public Administration and Development*, 194-206.
- Directorate General of Cipta Karya . (2012, 6 7). *Pelaksanaan Program Hibah Air Limbah*. Workshop FORKALIM, Balikpapan, East Kalimantan, Indonesia.
- Erb, M., Priyambudi, S., & Faucher, C. (2005). *Regionalism in Post-Suharto Indonesia*. London and New York: RoutledgeCurzon.
- Farazmand, A. (2001). *Handbook of Comparative and Development Public Administration*. New York: Marcel Dekker, Inc.
- Frot, E. (2014). Aid Effectiveness in Times of Political Change: Lessons from the Post-Communist Transition. *World Development*, 127-138.
- Gisselquist, R. M., & Resnick, D. (2014). Aiding Government Effectiveness in Developing Countries. *Public Administration and Development*, 141-148.
- Grindle, M. S. (2007). *Going Local Decentralization, Democratization, and the Promise of Good Governance*. New Jersey: Princeton University Press.
- Hadiz, V. R. (2010). *Localising power in post-authoritarian Indonesia*. Stanford: Stanford University Press.
- Hong, S. (2016). What Are the Areas of Competence for Central and Local Governments? Accountability Mechanisms in Multi-Level Governance. *Journal of Public Administration Research and Theory*, 1-15.

- Horn, M. (2016, June 6). Indonesia is blessed with abundant water resources, yet its people suffer from a severe shortage of potable water.
- Lewis, B. D. (2015). Decentralising to Villages in Indonesia: Money (and other) Mistakes. *Public Administration and Development*, 347-359.
- Lindert, P. V., & Verkoren, O. (2010). *Decentralized Development in Latin America*. Heidelberg: Springer Dordrecht.
- McNabb, D. E. (2009). *The New Face of Government*. Boca Raton: Taylor & Francis Group.
- Osborne, S. P., & Brown, K. (2005). *Managing Change and Innovation in Public Service 5 Organizations*. New York: Taylor & Francis Group.
- Perusahaan Daerah Air Minum Tirtawening Kota Bandung. (2013). *Rekapitulasi Penerimaan Seksi Pemasaran Air Limbah Tahun 2013*. Bandung: PDAM Tirtawening.
- Perusahaan Daerah Air Minum Tirtawening Kota Bandung. (2011). *Rencana Kerja dan Anggaran Perubahan Perusahaan Daerah Air Minum Tirtawening Kota Bandung Tahun 2011*. Bandung: PDAM Tirtawening.
- Perusahaan Daerah Air Minum Tirtawening Kota Bandung. (2012). *Rencana Kerja dan Anggaran Perubahan Perusahaan Daerah Air Minum Tirtawening Kota Bandung Tahun 2012*. Bandung: PDAM Tirtawening.
- Perusahaan Daerah Air Minum Tirtawening Kota Bandung. (2013). *Rencana Kerja dan Anggaran Perubahan Perusahaan Daerah Air Minum Tirtawening Kota Bandung Tahun 2013*. Bandung: PDAM Tirtawening.
- Poister, T. H. (2003). *Measuring Performance in Public and Nonprofit Organizations*. San Francisco: Jossey-Bass.
- Repucci, S. (2014). Designing Effective Civil Service Reform Lessons from Past Experience. *Public Administration and Development*, 207-218.
- Saito, F. (2008). *Foundations for Local Governance*. Heidelberg: Physica-Verlag.
- Smith, B. C. (1985). *Decentralization The Territorial Dimension of the State*. London: George Allen & Unwin.
- Smoke, P. (2015). Managing Public Sector Decentralization in Developing Countries: Moving Beyond Conventional Recipes. *Public Administration and Development*, 250-262.
- Snyder, K. A., Ludi, E., Cullen, B., Tucker, J., Zeleke, B. A., & Duncan, A. (2014). Participation and Performance: Decentralised Planning and Implementation in Ethiopia. *Public Administration and Development*, 83-95.
- Wagner III, J. A., & Hollenbeck, J. R. (2010). *Organizational Behavior*. New York: Routledge.
- Walker, R. M., & Andrews, R. (2013). Local Government Management and Performance: A Review of Evidence. *Journal of Public Administration Research and Theory*, 101-133.
- Widianingsih, I. (2006). Decentralization and Participation in Indonesia: Moving towards more Participatory Planning? *Sosiohumaniora*, 39.
- Widianingsih, I. (2015). International Technical Assistance for Local Governance Reform in the Post-Suharto Indonesia: Sustaining Aid Effectiveness? . In *International Conference on Public Administration (ICPA 11th)* (pp. 265-279). Chengdu: UESTC.
- Widianingsih, I., & Morrell, E. (2007). Participatory planning in Indonesia: seeking a new path to democracy. *Policy Studies*, 1-15.
- Widianingsih, I., McLarent, H., & Mills, J. M. (2017). Decentralization, participatory planning and the Anthropocene in Indonesia, with a case example of the Berugak Dese, Lombok, Indonesia. In J. M. Mills, & Y. C. Nantes, *Contemporary System Thinking: Balancing Individualism & Collectivism to Support Social and Environmental Justice*. London: Springer.
- World Bank Water and Sanitation Program. (2015, May). Retrieved May 20, 2017, from [www.wsp.org: https://www.wsp.org/sites/wsp.org/files/publications/WSP-Indonesia-WSS-Turning-Finance-into-Service-for-the-Future.pdf](https://www.wsp.org/sites/wsp.org/files/publications/WSP-Indonesia-WSS-Turning-Finance-into-Service-for-the-Future.pdf)
- Zhang, P., Zhu, C., & Hou, Y. (2016). Fiscal Decentralization, Flat Administrative Structure, and Local Government Size: Evidence and Lessons From China. *Public Administration and Development*, 198-214.