ABSTRACT

National Water Operators’ Partnerships (WOPs) are promoted to be able to deliver better performance results as they can overcome common hurdles in partnerships related to language and culture barriers. Our paper argues that although the underlying idea of national WOPs appears sensible, the findings in Indonesia suggest that the actual functioning and performance of the WOPs is very much dependent on the governance framework under which these utilities operate. As such, the national WOP is not able to transcend this politicized environment, but rather becomes part and parcel of it.

Key words | capacity, efficiency, partnership, performance, water

INTRODUCTION

Infrastructural funding and developments in the water sector have not kept pace with the rapid urbanization in the Global South. As a result, water utilities have not been able to provide water services to match this increasing demand, while managing systems characterized by high levels of non-revenue water (NRW), weak financial control and unsustainable operations. These problems, paired up with new challenges derived from new phenomena related to climate change, aggravate the performance of already ill-equipped utilities (Global Water Operators’ Partnerships Alliance [GWOPA] 2013).

In 2006, the concept of ‘Water Operators’ Partnerships’ (WOPs) surfaced as a highly-promoted capacity development configuration for improving service provision in developing countries (Water and Sanitation Program [WSP] 2009). The UNSGAB (United Nations Secretary-General’s Advisory Board on Water and Sanitation) formalized this initiative in the First Hashimoto Action Plan (HAP I) as an emerging tool that would contribute to the achievement of the Millennium Development Goal targets on water and sanitation (Hashimoto 2006). Many operators in these regions struggle to find and utilize capacity to expand services of quality to their citizens, and can be partnered to other utilities, with arguably stronger performance records, that can transfer knowledge and support the development of their operations through capacity development activities.

WOPs are defined as ‘any formal or informal collaboration or structured partnership aimed at capacity building on a not-for-profit basis’ (International Water Association [IWA] et al. 2009). These partnerships incorporate several principles that distinguish them from classic public-private partnerships. WOPs rely on the development of capacity of the recipient partner rather than replacing the partner utility. In doing so, these collaborations are based on peer-to-peer solidarity, and performance improvements achieved in a WOP will be the result of cooperation on a not-for-profit basis.

National WOPs concern partnerships developed between utilities that operate within the boundaries of the same country. In these partnerships, the shared cultures are argued to reduce obstacles in the partnering process, as difficulties in sharing knowledge can be aided when the differences in culture, language and political interests, laws
and policies are small or nonexistent (Dawes & Prefontaine 2003). Dawes et al. (2011) identify several factors that play a role in more effective cooperation between partners, and argue that the shorter the ‘contextual distance’ between partners in relation to these factors the better the cooperation (Dawes et al. 2011, p. 4). These factors are: (i) shared cultural traits and beliefs, (ii) existing local networks (iii) relational distance linked to past collaborations among partners, (iv) shared organizational goals and interests (organizational culture), (v) physical distance, (vi) technical distance, meaning the type of technology being used for service provisioning and (vii) knowledge distance between the knowledge available and what is to be received in the exchange.

Clearly, the context in which a partnership such as a WOP takes place is relevant and the environment in which WOPs develop is, in reality, complex. Often WOPs unfold in a context in which various actors have numerous and often conflicting interests (Schwartz et al. in preparation). These interests and influences manifest themselves at the utility level, in cooperation and development policies and/or in the relations between international agencies and national governments. In this paper we explore these complexities in the development of National WOPs in the Indonesian water sector. We argue that while partnerships at national level do, to a certain extent, benefit from shared values, culture and other short-distance benefits, these WOPs are also subject to the intricate shared political environment in which they develop.

MATERIAL AND METHODS

This research has been funded by the Ministry of Foreign Affairs of the Netherlands and developed in cooperation with GWOPA (Global Water Operators’ Partnerships Alliance) under a project (Boosting Effectiveness of Water Operators’ Partnerships) that seeks better understanding of the functioning of WOPs to develop tools for their improved effectiveness. The data was collected during November 2014 through semi-structured interviews at mentor and recipient utilities, with PERPAMSI (Persatuan Perusahaan Air Minum Indonesia – PERPAMSI is the national association of water utilities in Indonesia) and the Ministry of Public Works of Indonesia. The cases studied were selected in consultation with PERPAMSI, which identified four utilities that had participated in recently developed partnerships and that were able and willing to participate in this study.

WATER SUPPLY SERVICES IN INDONESIA

In Indonesia, the provision of water and sanitation services in urban areas is the responsibility of the PDAMs (Perusahaan Daerah Air Minum – local government-owned corporation for drinking water). Policy and regulatory responsibilities are shared at the national level by a number of ministries related to water issues, while the Ministry of Public Works remains the most important organization for the physical development of infrastructure for water services. At the regional and local level, PDAMs are influenced and controlled by the owner of the PDAMs (which can be the mayor or chief of district), provincial governor and regional regulatory bodies. It is generally understood that PDAMs should operate on the basis of full cost recovery, and preferably contribute to the budget of the local government (Hadipuro 2010).

The first registered PDAMs were established at the beginning of the 19th century during the colonial period (Hadipuro 2010). Until the end of the 1960s, very few Indonesian cities managed their own water utility (The Water Dialogues, undated). Only in 1970, when the central government got involved in the development of PDAMs through financial support for the development of infrastructure, did PDAMs develop to the entities they are nowadays. To date, there are 347 active PDAMs in Indonesia (BPPSPAM – Development Support Agency for Water Supply Systems 2013). Many PDAMs continue to face considerable challenges. PDAMs have suffered from slow debt restructuring after the crisis of 1997 (in 1997, many PDAMs had debts financed in foreign currency (mainly US$), and with the drastic devaluation of the Indonesian Rupiah during the financial crisis these debts became unserviceable) and have received little support from local governments to invest in infrastructure (Hadipuro 2010; World Bank 2012). To this day, PDAMs remain dependent on funds from either local or provincial governments and particularly on funds from the Ministry of Public Works to
Develop infrastructure. Directors of PDAMs in Indonesia are directly appointed by the mayor after the candidate goes through a suitability test. Usually, the Director of the PDAM is appointed based on a relationship of trust and confidence with the mayor. Local government ownership of the PDAMs and the appointment procedure for the managing director reflect considerable local government influence in the functioning of the utility.

In 2010 the government of Indonesia, through the Development Support Office of BPPSPAM, initiated a benchmarking process for all 347 PDAMs. The benchmarking program distinguishes between ‘healthy’, ‘less healthy’ and ‘unhealthy’ utilities (type of indicators: Financial aspects – liquidity, Return On Equity; Service – coverage; Operational – NRW; Human Resources – Employees/1,000 household connections). The performance indicators give relative weight per category: 25% to financial performance, 25% to service level, 35% to operational performance and 15% to human resources. Based on this exercise, the Government of Indonesia (GoI) classifies PDAMs in three categories with a maximum score of 5: healthy (a score of >2.8), less healthy (2.2–2.8) and unhealthy (<2.2). The results of this exercise are widely used among governmental and non-governmental organizations to determine support programs for water utilities. Typically, healthy utilities are able to access guaranteed loans with support from the Ministry of Public Works, and are expected to participate in government programs geared towards increasing the capacity of less healthy and unhealthy utilities. Less healthy and unhealthy utilities are usually net recipients of funds, be it in the form of training for their staff or funds for infrastructural development.

According to the last available report from BPPSPAM (2013), approximately 50% of PDAMs are healthy, 25% are less healthy and 25% are unhealthy. According to PERPAMSI, in reality these categories can be more nuanced as some PDAMs are still perceived by governmental organizations to be less healthy despite officially qualifying for a higher category.

**NATIONAL WOPS IN INDONESIA**

In recent years, National WOPs have been facilitated by PERPAMSI. PERPAMSI’s current role is to develop capacity development activities for PDAMs, facilitate partnerships and to facilitate and promote investments (national and foreign) in the water supply sector in Indonesia. The staff of PERPAMSI attended an international event organized in 2010 by Waterlinks to showcase experiences with WOPs involving international and Indonesian utilities. Based on that, PERPAMSI developed a WOP program that reflected the Indonesian water sector and that would be based on solidarity partnerships (*PERPAMSI Kemitraan Solidaritas*). PERPAMSI thought that shared language, culture and history as well as similar technological levels would enhance the concept of knowledge sharing at the base of the WOPs (*PERPAMSI, 2014*). PERPAMSI launched its first WOP program in 2011 and has since developed 34 WOPs (as of July 2016). The association is involved in every step of the WOP process either as an initiator, facilitator of the partnering process or as a mediator. The programs are focused on different activities, such as billing, customer care and strategic planning. Most WOPs, however, focus on reducing NRW.

After the launch of a WOP Program, PERPAMSI receives requests from interested PDAMs. Based on these requests, PERPAMSI matches the needs of the recipient PDAM with the expertise of possible mentor PDAMs. For this purpose, PERPAMSI has created a pool of mentor PDAMs by identifying well-performing mentor PDAMs. For this purpose, PERPAMSI has created a pool of mentor PDAMs by identifying well-performing utilities and identifying their field of expertise (i.e. NRW, billing, etc.). Although PERPAMSI officially makes the match between utilities, PDAMs often know or have heard of each other and recipient PDAMs usually identify potential mentors they would like to engage with in the partnership. Similarly, mentor utilities have the option to choose the mentee or reject the match made by PERPAMSI based on their own considerations. In the process of matchmaking, the facilitator makes sure that the knowledge of the mentor really matches the need of the mentee, the availability of the mentor and the similarity between the utilities’ systems and the physical distance. However, these elements mentioned above seem to become less relevant as the willingness of both partners to enter into a partnership seems to gain more importance in the selection, according to PERPAMSI. Once the match is made, PERPAMSI requests the mentor for a written confirmation that they agree with the match made. In some cases, the mentee and mentor have already worked together.
and have agreed on cooperation in the form of a WOP. In this case, they would still request PERPAMSI to facilitate the partnership because, according to the PDAM staff interviewed, they appreciate the role of the facilitator.

PERPAMSI finances the inception of the partnership by providing Rp. 15 million (US$ 1,250) to each partner. These funds are to be exclusively used for traveling and accommodation expenses. All partners involved in WOPs acknowledge that these funds are a symbolic seed-funding that facilitates the start of the cooperation. The rest of the funds to complement the cooperation (i.e. additional visits, development of pilots) are disbursed by the partners themselves. The costs of materials that utilities require to implement activities under the WOP (i.e. water meters, servers, etc.) are to be paid for by the recipient PDAM. Frequently the recipient PDAMs try to source funds from the Ministry of Public Works to cover these costs. The funds of the Ministry of Public Works are not directly linked to the implementation of the WOP but can be sourced for material procurement for daily operations. They are disbursed according to a different timeline to the WOP and do not necessarily follow the same programs or priorities as those identified by the WOP.

CASE STUDIES

Tirta Raharja-Tirta Kepri

Tirta Raharja provides water services in the Bandung Regency on Java. They became the mentor of Tirta Kepri, which services the municipality of Tanjung Pinang on Sumatra in the second batch of WOP programs organized by PERPAMSI. Both utilities agreed to develop and implement a work plan for the reduction of NRW and development of an improved billing system. Tirta Kepri chose Tirta Raharja as a mentor because they were familiar with the work they had developed in the field of IT-supported billing systems and in the reduction of NRW (Table 1).

The degree to which this partnership is seen as a success varies between the partners. According to the mentor and facilitator, this WOP did not develop to its full potential. The inability of the mentee to raise sufficient funds to develop the pilot site in a timely manner is one of the main reasons attributed to the poor results. According to Tirta Kepri, the funds were disbursed with some delay by the Ministry of Public Works. However, once disbursed – upon the completion of the WOP – they implemented the pilots suggested by Tirta Raharja. This appears to be corroborated by the improved assessment of the utility, which went from unhealthy to less healthy in the national classification. Tirta Kepri claims to be implementing the lessons learned from Tirta Raharja to sustain these performance improvements. Since the changes were only implemented upon the official completion of the WOP, the attribution of lessons learned and improved performance that Tirta Kepri claims is not shared by Tirta Raharja, nor PERPAMSI. The delays experienced during the WOP are perceived as a burden by Tirta Raharja, as the collaboration with Tirta Kepri did not produce any ‘clear results’ (Tirta Raharja Technical Director, 12-11-2016) during the WOP. At the same time, engaging in such partnerships does come at considerable costs. As a mentor, Tirta Raharja not only has additional out-of-pocket costs that are not covered by the partnership agreement, but also misses some of its experienced staff, who are involved in the WOP’s activities in their routine operations. These additional efforts come at an additional burden when results cannot be measured.

| Table 1 | Key Performance Indicators (KPIs) overview Tirta Raharja/Tirta Kepri – selection (BPPSPAM 2013) |
|---|---|---|---|
| Billing collection efficiency | 97.9% | 114.1% | 129.6% | 90.8% | – | 86.5% |
| Coverage | 37.1% | 53.1% | 30.9% | 55.8% | – | 42.3% |
| Service continuity (hours/day) | 24 | 18 | 24 | 7 | – | 13 |
| Employees/1,000 connections | 3.9 | 3.6 | 3.4 | 6.7 | – | 8.2 |
| Score | 3.55 | 3.85 | 3.89 | 2.27 | – | 2.75 |

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Tirta Raharja has a good relationship with the Ministry of Public Works and has benefited over the past years from a number of development programs initiated by the Ministry. They have had the opportunity to participate in a WOP with an international partner, they stand high in the national classification, and they have displayed continued performance improvement over the past years. In return, the Ministry requests that they participate in several capacity development programs in Indonesia. Given the costs involved, the management of Tirta Raharja wishes to limit the contributions of their organization to these programs. However, they feel they are not able to decline programs fostered and promoted by national organizations with which they are strongly linked and dependent upon. The Technical Director of Tirta Raharja takes care to maintain good relationships with the Ministry. As one of his colleagues explained: ‘He makes sure he is very present in Jakarta [Ministry of Public Works]. Everybody knows him there’ (Tirta Raharja Employee, 11-11-2014). Participating in partnerships and being visible in the sector and at the Ministry of Public Works in Jakarta is in the interest of Tirta Raharja. ‘Participating in these activities [WOPs] has strengthened our relationships. What we want now from the Ministry of Public Works, we can easily get’ (Tirta Raharja Technical Director, 12-11-2014).

Since the positive results of the pilot, Tirta Kepri has been receiving additional funds for infrastructure development from the Provincial Government to further improve the utility’s performance. This leads to a situation that puts the management of Tirta Kepri at odds. From one side, they want to showcase the utility’s results and (significant) improvements (Table 1), while on the other hand upgrading to the ‘healthy’ category would inhibit the utility from receiving additional grants from the provincial and national government for infrastructure development. Moreover, they would be expected to contribute to the capacity development program by becoming a mentor PDAM. As a result, the managing director of Tirta Kepri jokingly suggested that he would prefer not to see the improved performance of his utility reflected in official documents.

**Tirta Musi-Tirta Mayang**

Tirta Musi, which provides services in Palembang, Sumatra, had partnered in the past with Tirta Mayang, which services the municipality of Jambi on Sumatra. In the 1990s, Tirta Mayang mentored Tirta Musi in the Geographic Information System mapping of the water services infrastructure in Palembang. However, the performance of Tirta Mayang deteriorated over the last 15 years (Table 2) and in 2012 Tirta Musi became the mentor of Tirta Mayang for a program on reduction of NRW (Table 2). Both partners and the facilitator consider this a successful partnership. The reason for this is that a pilot project was set up during the time allocated for the WOP. Early in the WOP, Tirta Mayang was able to allocate funds (from their internal budget) to the development of a District Metered Area (DMA). The pilot was successfully developed but it was not replicated. The managing director of Tirta Mayang did not believe in the positive outcomes of the WOP and decided to stop further development of DMAs. Following the appointment of a new (interim) managing director, however, Tirta Mayang is considering restarting the NRW program with the installation of new DMAs. These DMAs will likely be developed under a new agreement of cooperation that the municipalities of Palembang and Jambi signed at the end of 2014 to improve basic services. This highlights the influence of individuals, particularly in management and political positions, in the

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development of a WOP. It also highlights the importance of the relationship between the managing director and mayor.

The Director of Tirta Musi has a good relationship with the mayor of Jambi, who originates from Palembang. Through this relationship he believes he has positively influenced the development of water services in Jambi. Both utilities feel that having the support of the mayors in this cooperation facilitates changes that the utilities wish to implement. The staff of the utility of Palembang had little influence on the changes introduced in Tirta Mayang once the WOP was finished. However, the director of Tirta Musi has tried, through personal relations, to influence the cooperation between municipalities mentioned earlier. He has also mediated with Palembang’s mayor to discuss with Jambi’s mayor a ‘proper’ successor of the Director of Tirta Mayang.

ARE NATIONAL WOPS IN INDONESIA ALL OPPORTUNITIES?

Peer-to-peer solidarity

The philosophy of solidarity imposed by PERPAMSI is widely shared among utilities in the sector. This sense of solidarity plays a positive role in the development of WOPs. Despite minor funding, mentors and recipient PDAMs have shown their willingness and commitment to these partnerships by contributing with their own resources. This willingness and commitment is strongly linked to the shared understanding and drive to develop and improve the national water sector. However, the participation of PDAMs in these WOPs requires them to free up experienced staff to support the development of the WOPs, as well as financial resources. WOPs in Indonesia seem to have overcome the hurdle of limited available funds. Generally, WOPs are financed by external agencies unless there are available funds internally to the utilities to carry out the program. The reliance on external actors for funds leaves these programs subject to the interests and priorities of these external actors. This limitation would not apply to a self-funded, and self-managed, partnership, but it does limit the full implementation of programs and it excludes from participating in this program certain PDAMs with a lack of their own resources. In Indonesia, the parties that are interested in the development of WOPs either have no resources or clear specific interests that may collide with those of utilities.

Solidarity and access to funds

At the same time, ‘solidarity’ between the PDAMs is also a result of the strong intertwine of the PDAMs with provincial and national water organizations. Given the low levels of local government investment in the water services sector, many PDAMs are dependent on sourcing funds from the provincial and national agencies like the Ministry of Public Works. The PDAMs realize that sourcing these funds requires them to participate in the capacity development programs of these organizations, as well as adhering to programs and priorities identified by these parties.

Limits to performance improvements

The benchmarking exercises that classify utilities are of great influence for the few governmental agencies that are in control of funds and infrastructural development. For a utility to obtain grants instead of guaranteed loans, a utility must be classified as ‘less healthy’ or lower. PDAMs may thus lack incentives to move from a less-healthy status to a healthy status as this endangers access to grant funding, and puts in jeopardy the potential learning opportunity and improvements resulting from a WOP. This also has an impact on how WOPs are approached, as some utilities who are on the border of becoming healthy may have an incentive to limit the successfullness of the partnership.

Political environment

Given the local government ownership of the PDAMs, the success of national WOPs in Indonesia is very much dependent on the relations between mayors and directors of the PDAMs involved in the WOP and the discretionary budget allowance given to Directors. In comparison with international WOPs the influence of the political realm appears to be bigger in national WOPs. As the PDAMS operate under the same national agencies, they are also subject to the same political realm, expanding the influence from local decisions to regional or national budget distributions.
As a consequence, the embedding of the partnership in the political environment is of crucial importance for understanding national WOPs.

CONCLUSIONS

The underlying idea of National WOPs appears sensible in the development of our cases, and our findings in Indonesia suggest they can be an effective tool for capacitating weak utilities. By shortening the ‘contextual differences’, cultural and technical barriers are reduced. Moreover, the knowledge that utility staff are working on improving the national water services sector appears to be a strong motivation for many utility staff. At the same time, the findings suggest that the actual functioning and performance of the WOPs is very much dependent on the governance framework under which these utilities operate, as well as factors surrounding the WOP such as the shared national regulatory and support framework. As a result of this, WOPs cannot be looked at merely as capacity development programs. This is particularly visible in Indonesia, where water utilities are tightly linked and highly dependent on the political environment. This political environment involves both local mayors, who act as the owners of the utility, and the Ministry of Public Works, which is heavily involved with utilities in supporting investment plans in water supply infrastructure. National WOPs develop within this politicized environment, and are perhaps more subject to this political environment than international WOPs.

Being dependent on both local government owners and the Ministry of Public Works, utilities must maneuver carefully to ensure workable relationships with both entities. The national WOP is, thus, not able to transcend this politicized environment, but rather becomes part and parcel of it. Therefore, when analyzing the effectiveness and efficiency of a WOP it does not suffice to look at matters of knowledge management and knowledge transfer, such as number of trainings, quality of trainers, capacity needs assessment and the like. The political environment in which they are embedded will also need to be taken into account as an enabling or disabling factor of shared values, language and systems. Further research is needed to understand the idiosyncrasies of the national set ups for WOPs and understand which factors play a more relevant role in the development of these partnerships to determine their design and effectiveness.

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