

The Hard Way to the High Road

Transition of Community-based Water Groups to Professional Service Providers in Indonesia

January 2011

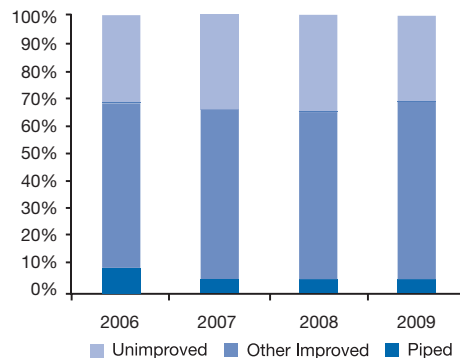
As significant numbers of Indonesian villages are outside the reach of utility service,¹ since the 1990s the Government of Indonesia (Government) has been supporting the construction of village water infrastructure to be managed by users through community-based water organizations (CBOs). Emphasizing project ownership and democratic involvement, community-based management is thought to allow systems to be better maintained and operated post-project.

Although community involvement in water supply has been going on through national projects in Indonesia for years, it was not until 2004, through the Water Resources Law, when the role of CBOs in water supply development was formally recognized. Before 2004, most policy pronouncements and official project documents considered CBOs to be a vehicle for project implementation rather than a long-standing approach to rural water development and management.

The perhaps unexpected success of some CBOs is fomenting a discussion among policy-makers and project designers around whether CBOs might

¹ Out of 64,000 rural villages in Indonesia, over half (52%) rely on unimproved sources of water.

Figure 1: Rural Water Supply Access



Source: Central Statistics Agency, SUSENAS

not transition from the original concept of a post-construction “coping mechanism” into a real engine for accelerating access to water in rural areas (Figure 1) through a service-oriented enterprise of the community. Using the project inputs as genuine start-up capital, can CBOs create value? Is there sustainability after project? And if there is, what can be done to encourage more of it?

SIGNIFICANCE OF CBOs TO INDONESIA'S WATER SUPPLY

There is no census on how many CBOs presently exists in Indonesia, how many households rely on them for water, or the post-project attrition rates, but CBOs are estimated to be in the tens of

Key findings

- **Each Community-based Organization (CBO) provides an average of 1,200 people from low-income households with water service;** they could be serving up to 800,000 people with piped water, or about 7% of the total population of the five districts; in Blitar and Lamongan, CBOs provide piped water to 3 and 5 times more households than the local water utility (PDAM).
- **Emphasizing local ownership, CBOs allow systems to be better maintained and operated over their lifetime, and where they perform exceptionally, they operate the infrastructure to generate value and expand services:** 67% of CBOs had operating ratios lower than 1, and can be as low as 40% in some cases.
- **There is significant demand:** a willingness-to-pay investigation undertaken with 2,100 households showed a 30-300% WTP over the average tariffs currently paid by rural households in these five districts.
- **CBOs are by and large “promising but fragile”:** a few of them have already expanded some components of their systems, but in the absence of a financing facility, they painfully build up funds over time, borrow against the personal credit of one of the leaders, or turn to government or new donor programs.
- **Access to financing is not the only constraint;** expansion also requires improved commercial practices and most CBOs do not have systems in place to plan and budget on an annual basis.

thousands.² A survey conducted in five districts in West and East Java³ identified 600 CBOs managing piped water systems formed under development projects—that is more than 100 CBOs per district. Although the numbers of defunct organizations were not ascertained, in drawing the sample, one in every four CBOs had to be replaced because it was no longer active.

Nevertheless, the existing CBOs provide a far-reaching service, catering to an average of 1,200 persons (approximately 260 households) per organization. In these five districts alone, CBOs could be serving up to 800,000 people with piped water, representing some 7% of the total population. In Blitar and Lamongan, East Java Province, CBOs provide piped water to 3 and 5 times more households than the local water utility (PDAM).

2 Under World Bank-supported projects alone (1990-2010), Indonesia has constructed over 9,000 rural water supply schemes managed by communities. More are being constructed with support from other donors and international development banks, by local governments through the Dana Alokasi Khusus (DAK), non-government organizations, and corporate philanthropies.

3 The Water and Sanitation Program's Multi-Village Pooling Project Study assessed 171 CBOs representing 25% of over 600 known CBOs existing in the districts of Bandung and Cianjur in West Java Province and Lamongan, Malang and Blitar in East Java Province.

Between 50% and 60% of those served by CBOs belong to the lowest income bracket of households, with a monthly income of less than 1 million Indonesian rupiah (IDR). In Cianjur and Lamongan, CBOs served disproportionately larger numbers of low income households in those districts. While the total households in those districts with an income of less than IDR 1 million per month was, respectively, 46% and 30%, 52% and 55% of CBO customers were from the this lowest income bracket.

Willingness-to-Pay and Customer Satisfaction

There is significant demand. A willingness-to-pay (WTP) survey⁴ of 2,100 households, both currently connected and potential customers, was conducted in the five districts. The survey reveals that compared to the average tariffs currently paid by rural households to CBOs, WTP is significantly higher, ranging from 30% to 300%. Table 1 compares WTP per m³ with current average charge per m³. WTP between current and potential customers did not vary significantly, although the WTP was higher among respondents in areas where the CBOs charged a volumetric rate than where

4 Water and Sanitation Program and Akademika, Willingness-to-Pay for Community-Based Water Supply Services in West and East Java, (2009).

charges were based on a monthly flat fee.

The high willingness is partly driven by customers' desire to have better water pressure and reliability of supply. Over 60% of respondents noted these to be problems in the current service, while the WTP scenario (Box 1) offered good pressure and reliability. Usually, pressure and reliability drops because CBOs add connections without the corresponding increase in water "take" or withdrawal rates and without structural adjustments, such as changing pipe sizes, pump capacities, etc., or because residents who are charged a flat fee (as opposed to a volumetric charge) use water unwisely.

On the other hand, CBOs enjoy the trust of customers who agreed that they were responsive to customers in managing repairs, billing and collecting payments and in maintaining the funds of the CBOs honestly. Many of those currently not connected to the service are willing to connect; 50% of respondents were willing to connect if they could pay outright and 80% if they could pay by installment.

It is clear opportunities exist for CBOs to upgrade their systems and expand their business, but it seems that under present conditions, CBOs cannot take full advantage of the market potential.

PROMISING BUT FRAGILE

A few CBOs have already expanded some components of their systems—mostly distribution networks and house connections. This can sometimes cause a problem if production, transmission and storage capacity are not proportionately expanded when maximum capacity has been reached, but these activities would need a lot more investments.

Most CBOs (67%) make more than they spend, so are able to turn a profit and gradually build up additional equity. Expense-to-revenue ratios can be as low as 40% in some cases. Thus, using current commercial terms for investment finance, CBOs have borrowing

BOX 1: WILLINGNESS-TO-PAY (WTP) SCENARIO

The WTP used the contingent valuation method, a stated preference technique that seeks the valuation of a hypothetical scenario. The scenario included these characteristics of service:

- Monthly consumption of 10 cubic meters
- Water is clear, no discoloration or cloudiness; odorless, no rotting or strong smell of chemical or rusting; no unfavorable taste
- Adequate supply during peak hours
- 24-hour daily water service; pressure is strong when tap is opened
- Prompt and reliable service: In the event of water disruptions, repair takes no more than three days

Table 1: WTP Comparison Between Current and Potential Customers

Regency/Water Association	Willingness to Pay (Volumetric-Paying Users Only)			Examples from Specific CBOs		
	Average per m ³	Lower bound per m ³	Upper Bound WTP m ³	Average consumption per month (in m ³)	Billing for consumption in column (1)	Average billing per m ³ based on average consumption
				(1)	(2)	(2)/(1)
Bandung	2,107	2,038	2,177			
Kelas C				10	12,500	1,250
Pesat				12	15,000	1,250
Blitar	1,737	1,670	1,803			
Banyuaji				17	8,000	471
Tirta Darmahusada				21	21,000	1,000
Cianjur	2,582	2,519	2,645			
Tirta Manggala				13	25,900	1,956
Tirta Jagabaya				12	18,400	1,533
Malang	2,264	2,180	2,349			
Sumber Ajo				15	15,000	1,000
Lamongan	2,395	2,338	2,453			
Tirta Mulya				12	13,000	1,083

Figure 2: CBOs Organizational Systems

CBOs Organizational Systems

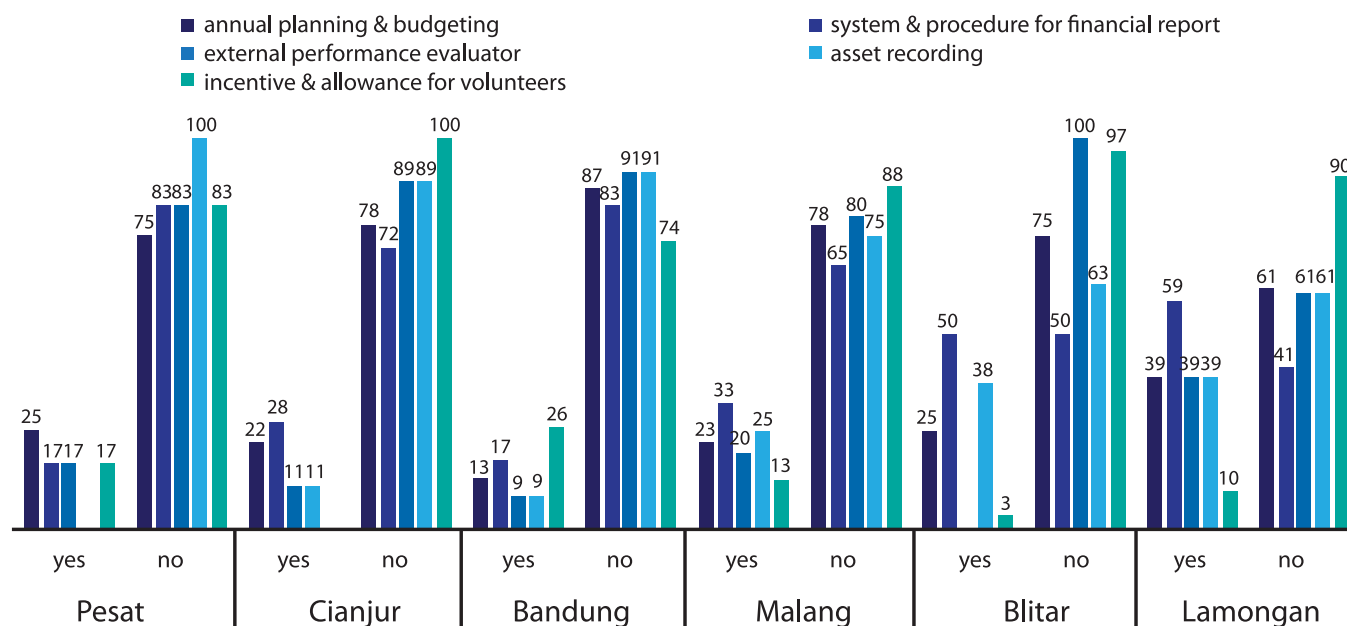
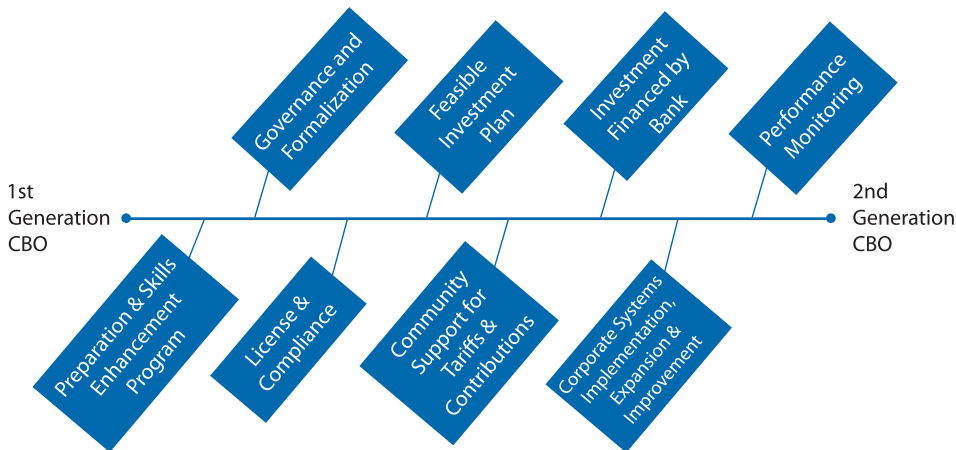


Figure 3: A “Graduation” Roadmap



capacities between IDR 12 million to 400 million⁵ (between USD 1,333 and USD 44,444)—if only someone would lend to them.

In the absence of a financier, CBOs wait to build up funds ever so slowly, borrow against the personal credit of one of the leaders, or turn to donors and government. In order to support the ability to seek debt financing, financial recording and reporting needs to greatly improve so that both the CBO and its financier can accurately see the financial status of the enterprise.

Access to finance is not the only constraint. Expansion requires improved commercial practices beyond what CBOs might be able to currently arrange. An increase in the numbers of customers, for example, will require improved billing and collection practices and customer accounts tracking. A going concern, in an environment of rapidly changing socio-demographic conditions, requires continuous business and investment planning.

Many successful CBOs are “one man shows” that rely on a single leader for direction and control. A number of organizations, for example, have not called a general assembly in the years following their establishment. So

5 Assumes a debt-service coverage ratio of unity, interest rate of 18% p.a., three years to pay.

far, however, CBOs enjoy the trust of customers/communities, but such a practice is highly susceptible to being captured by one person for personal gain.

According to the assessment of five organizational practice areas, the overwhelming number of CBOs do not have systems in place to plan and budget on an annual basis, are not externally controlled for performance, have no incentives for staff (who are often volunteers), or systems for financial reporting and asset recording (Figure 2).

If CBOs are to be the enterprise of tomorrow, they need to update their organizational systems, i.e., how to decide, how track activities and finances, how to recruit and retain talents, how to generate support for customers and other stakeholders, and how to stay above-board.

SUPPORT TO SECOND GENERATION CBOs

The World Bank’s Water and Sanitation Program (WSP) has been assisting the “next generation” of CBOs through a process of identification and reinvention into water enterprises of the community. In partnership with the Australian-funded Indonesia Infrastructure Initiative, WSP is supporting the Ministry of Public Works and the National Development Planning Agency to develop and test solutions

that will move CBOs from here to there through the “Upgrading Community-based Piped Water Services with Private Sector Support Project,” tagged as the “Second Generation Project.”⁶

The Second Generation Project has entered into partnership with Bank Negara Indonesia to support CBO access to investment financing. While first generation investments in CBOs are financed by public grants, the activity introduces a scheme in which existing CBOs can finance additional investments through the market, with an output-based reward afterwards that will reimburse a portion of the investment. The use of commercial finance ensures that funding supply will continue, and introduces a new level of market discipline on the CBOs. To be eligible, CBOs will need to become more professional as organizations (Figure 3), by obtaining legal personalities, appropriate licenses, credit-worthiness through realistic tariffs, and better collections and management. Thus, the project incentivizes and supports CBOs through organizational reforms.

So far 30 CBOs have participated in a skills enhancement program, where they learn to use tools for inviting community participation in planning, upgrade their knowledge on water supply system engineering design and maintenance, and employ a financial recording and reporting system designed for CBOs. For some of the participants who have not finished secondary school, this class provided their first experience using a computer. But despite the relatively difficult nature of the material, trainees were highly active and appreciative of their new knowledge. Communities are now also deciding and designing, with the support of project engineers, the required components of their investments projects.

6 With “first generation” projects being those that initially built water supply systems in rural areas and organized communities to operate them.

Illustration 1: CBO Official Inspecting Water Pump in Lamongan



In a later phase, the Second Generation Project, will seek to involve the private sector in improvement programs for CBOs. While some CBOs will be credit-worthy at the outset, for the majority of existing CBOs, there will continue to be a need for improving their capacity in operating and managing systems. The project will explore alternatives to “capacity-building” by introducing partnership arrangements with the private sector. The private sector could be brought in through fee-based technical support/transfer, management support contracts, or even as co-financing/investment partners.

For these activities, the role of the local government changes from project implementation to oversight. This is a new concept for local governments as well, who have only recently been made responsible for water supply services under decentralization. To introduce ideas on obligation agreements between local governments and CBOs and on monitoring of performance, a model local regulation has been developed and is being discussed and finalized with participating districts.

A BUMPY ROAD WITHOUT A COMPASS

A roadmap might be conceivable, but by no means is the path to becoming a “second generation” CBO straightforward. One of the emerging findings is that while there is talk about, and intent on, strengthening self-reliance and sustainability, these do not easily translate into policies or practices that enable community organizations. Whether by design or default, current institutions are just not making it easy for CBOs to professionalize. Like navigating without a compass, policies, rules, and procedures have not yet been developed for these kinds of situations.

Claims on Project Assets and the Fruits of Community Enterprise

An issue that has come up early on is the treatment of start-up capital/assets held by the community (as an informal association) through first generation projects. The ownership status over project investments lacks clarity because of the effect of broader legal limitations on government property

and accounting systems. Although the possession and use by CBOs of project assets are not presently under threat, the issue of ownership can be an emotive one; during first generation project implementation, the mantra repeated was “the community owned the assets.” In the eyes of the law, however, communities do not own these assets until they are formally transferred, which could take many years as transfers follow procedures for divestiture of state property.

But the attention of CBOs is best focused on the pragmatic and on the future. For example, although project assets are not owned, they are under the legitimate possession of CBOs. CBOs have legitimate rights of use of those assets to generate value. The equity created through the labor and enterprise of CBOs can be very substantial and often in the form of cash. The claim of CBOs over these “next generation” assets is clear and they will be better able to protect those claims by formalizing as a legal entity, keeping records, and placing cash in bank deposits under the name of the entity. CBOs are taught to segregate the “first generation” assets in their financial reports so that the correct attribution is recorded and the corresponding depreciation of asset value is tracked. At the same time, CBOs and local governments are encouraged to build up a depreciation fund, including for those assets that CBOs use but do not own—simply because the owner (in this case, the government), who has the responsibility to replace them is unlikely to do so in a timely way.

Formal Requirements of Becoming a Legal Entity

Practical matters also arise as to how an informal association that has existed *de facto*, transforms into a legal (*de jure*) entity, given that legalization requires specific actions and formalities that may not make sense to a group that has already been in existence for many years. For example, communities are now having to think about who

constitutes the required numbers of “founding members” or “incorporators” of the enterprise and what this means for equality in rights among neighbors, who have put in their labor and contribution into the association over the years.

Defining the purpose of the CBO also deserves thought. Under the present legal rule of law, communities can participate in water supply development for the purpose of “fulfilling their own needs.” This would require, then, an organization that is able to go into revenue-generating activities, but not for the primary purpose of profit; the overriding purpose is service. The practical effect is that no private dividends are declared; all profits are put back into the mission of the organization or used for “community dividends” to invest in other community services and public goods. A different process applies in case of the establishment of a water enterprise that is primarily for profit. A for-profit enterprise will need to

go through the rules on public-private partnership in infrastructure, which requires interested parties to participate in a competitive bidding process.

Compliance

Doing the right thing is also not easy. Many CBOs exist today without a permit to draw water or to operate a water supply system. However, in a number of instances where CBOs have tried to do the right thing, it was either impossible to do so because no process existed or there were more disincentives to comply. For example, right now, no local government has procedures for issuing licenses/permits to CBOs to operate or to review them in a manner consistent with due process, even though local governments form more and more CBOs each year.

Interestingly, in a few cases where there are local instruments or policies around CBOs, they often refer to the role of

CBOs in contributing to the village government revenues. But because the rule of law is not straightforward for them and since many CBOs are not able to accurately account for their financial status, they often have to pay contributions to the village government before being able to ascertain whether profits have been made.

In relation to exploiting water, where a permitting system does exist, CBOs find themselves being assessed a higher fee rate than PDAMs since they are construed under the “catch-all” business category. Despite the preference given by the Indonesian water rights policy for drinking water supply and the exemption under the general laws for water exploitation permits for the purposes of “own use,” CBOs find themselves being categorized as “businesses” rather than water supply providers, and in some cases, have no choice but to make a bribe. The result is that CBOs would rather stay out or step out of the system. This is unfortunate when CBOs are quite open to supporting water conservation activities, as they are very aware that their continuity as an enterprise depends on water being available. In Malang, CBOs happily pay a reasonable sum to the water conservation authority (in this particular case the water resource is under the supervision of the Ministry of Forestry), where the fees are used to plant trees in the watershed under the name of the CBOs.

Illustration 2: CBO Secretary Poses in Front of Permanent Office Paid for by CBO Profits



CONCLUSIONS

Formality and improved organizational systems are critical building blocks for the “next generation” CBOs. Not only will these increase their ability to access commercial financing, but also mitigate some of the risks of exploitation and secure for the members a more predictable and transparent management of their (increasing) assets.

Through formality and improved systems, CBOs are able to ring-fence themselves as an enterprise that is truly “of the community, by the community and for the community.” The irony for

now, however, is that in trying to achieve these same goals CBOs are made vulnerable because of the lack of clarity in policy and practice.

LESSONS AND RECOMMENDATIONS

Transitioning from an informal to a formal association is a process of trust and resolve between the organizations' leaders and members and needs clear guidance from support agencies. One of the first skills training modules introduced in the Second Generation Project was not technical operations or finance, but participatory decision-making to emphasize a broad-based process. Only after supporting the CBO through a visioning process, did the project introduce different organizational forms, their implications and their formal requirements. Decisions are arrived much faster and with less conflict where the local government is present and supportive of the process.

Clear guidance is important and because laws and procedures are not straightforward, they are prone to many interpretations.

External agencies supporting the process need to understand the legal and institutional context well in order to give advice and should consult with experts, including lawyers, notaries public, and experts in sector policies. Research will almost always be needed to understand locally applicable laws and regulations.

Focus on the pragmatic. Without being insensitive to community sentiments, it is important that external support agencies help project stakeholders focus on practical issues. Sometimes, the ideal approach will require such a comprehensive reform it becomes unlikely to materialize, e.g., the resolution of asset transfers. Instead, support agencies and CBOs might be more able to address some of the “symptoms” of underlying problems

or mitigate consequences. For example, in the Second Generation Project, the commercial financing partner is not looking to use project assets as collateral; instead, a guarantee/insurance arrangement has been structured.

First generation projects can avoid a number of the “transitioning” pains by supporting formality and helping communities anticipate growth early on. Enthusiasm is particularly high during the project phase, and more support resources are available to the communities then. First generation projects can avoid many of the difficulties faced by transitioning CBOs through better organizational management support and—better advice on which expansions the current water system can tolerate without structural modifications.

Local governments should seriously consider, and national government should advocate, adopting a local regulation setting out the rights and responsibilities of CBOs in their jurisdiction and the process

for licensing, review and reporting.

This is best done in conjunction with a sector-wide master planning at the local level so that service areas are well defined across service providers. It is notable that the Ministry of Public Works, Director-General for Infrastructure has issued a letter of instruction to districts encouraging them to develop such regulations. The Second Generation Project has also developed a model local regulation as a reference for local governments.

Compliance regulations should be reviewed. A review is needed to ascertain whether in setting fees and standards too high, CBOs (and the public at large), will only continue to stay out of the system, particularly given the very low enforcement capacity presently available. Labor is one of the most abundant assets of low income communities and it is arguable that their contribution in planting trees and maintaining the watershed is far more valuable and directly relevant to water resources management than being assessed a fee that they cannot afford.

Illustration 3: In Some Cases, Even the Rich—Such As Residents of Bandung's Posh Dago Area—Rely on CBO Service



Illustration 4 : Checking Out Water Pressure in Cianjur, West Java

The Water and Sanitation Program (WSP) is a multi-donor partnership created in 1978 and administered by the World Bank to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP's donors include Australia, Austria, Canada, Denmark, Finland, France, the Bill & Melinda Gates Foundation, Ireland, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank.

The findings, interpretations, and conclusions expressed herein are entirely those of the author and should not be attributed to the World Bank or its affiliated organizations, or to members of the Board of Executive Directors of the World Bank or the governments they represent. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

© 2011 Water and Sanitation Program (WSP)

About the author

Jemima Sy leads the team implementing the Second Generation Project. She has worked over the last five years in the World Bank Jakarta office as a Water and Sanitation Specialist. A lawyer by training, Jemima has over 10 years experience managing water and sanitation initiatives focused on institutional reforms, entrepreneur development, and public and private financing.

Acknowledgments

The project, "Upgrading Community-based Piped Water Services with Private Sector Support" (the Second Generation Project) is led by the Ministry of Public Works and jointly supported by the Water and Sanitation Program of the World Bank and the Indonesia Infrastructure Initiative (Indii), an Australian Government-funded project designed to promote economic growth in Indonesia by enhancing the relevance, quality and quantum of infrastructure investment. This note benefited from inputs from Jim Coucouvinis, technical director for Indii's Water and Sanitation Program and Deviariandy Setiawan, Project Coordinator for MVP. Photos were taken by Yosa Yuliarsa. Almud Weitz, Christopher Walsh and Kara Watkins made valuable and useful suggestions by reviewing drafts of this note.

Contact us

For more information:
visit: www.wsp.org
email: wspeap@worldbank.org

