



Case Study: A full-service approach to water supply and sanitation lending

Executive summary

In December 2021, Water.org hired third-party consultant SPIRE to produce a case study on its partnership with financial institution Koperasi Syariah Benteng Mikro Indonesia (KBMI), a Sharia cooperative providing financial services to women in lower-income households in Indonesia. The research aimed to capture KBMI's best practices from six years of offering household water supply and sanitation (WSS) loans to its clients. This case study documents KBMI's unique approach to WSS lending, evolving from a standalone savings and loan cooperative to a holding cooperative with two additional lines of business – a housing and service cooperative that provides mason services and a cooperative that provides construction materials for building WSS facilities. The findings demonstrate how this approach enabled KBMI to provide long-term WSS lending services and ensure quality construction and materials for its customers, while also serving as an additional source of revenue.

Introduction

The context for partnership

Indonesia has made significant strides in its economic development over the past decade, decreasing the poverty line by eight percentage points from 17% in 2003 to 9% in 2019 due to its increasing middle class.¹ However, despite these gains, the country is still lagging in terms of universal access to safely managed water and sanitation.

While Indonesia has experienced significant progress by boosting its percentage of improved sanitation to 77.44% and improved drinking water to 88%, inequalities due to geographical differences in access to water supply and sanitation (WSS) facilities are still significant, primarily impacting poor households in rural areas.² The rate of improvement in rural communities is much slower than in urban areas due to the lack of awareness regarding the importance of safe sanitation, as well as the lack of access to adequate sanitation facilities. Based on the latest National Socio-Economic Survey (SUSENAS, 2020), the percentage of households with safely managed sanitation in urban areas has reached 80.67%, compared to the percentage in rural areas which only reached 53.43%.

A 2021 survey of KBMI clients found that the primary reasons borrowers decide to take out WSS loans are convenience, better water quality, and better health.

KBMI and Water.org partner to develop water and sanitation loans

Water.org began working with KBMI in 2014, its first financial institution partner in Indonesia. KBMI is a credit and savings cooperative offering Shariah-compliant financial services to women and micro-businesses with 77 branch offices across Banten and West Java. As a cooperative, KBMI's members share an ownership stake in the business.

Together, Water.org and KBMI developed two loan products for water supply and sanitation (WSS), *Mikro Tata Air* (MTA) and *Mikro Tata Sanitasi* (MTS), with Water.org providing technical assistance for market research, product development, and monitoring. New and existing members apply for these loans for a maximum of USD \$1,049.

Once the product was mainstreamed into KBMI's operations, Water.org continued to support KBMI by organizing partner meetings where KBMI could network with Water.org staff and partners, NGOs, and WSS product suppliers to maintain their motivation and interest in WSS lending.

¹ Indonesia: Share of people living below the poverty line 2020. (2021, February 15). Statista.

² Asia and the Pacific Ministers' Meeting - 2 December 2020: Republic of Indonesia Country Overview. (2020). Sanitation and Water for All (SWA).

Findings

KBMI successfully incorporates the WSS supply chain into its business model

From 2014-2019, the process of obtaining a new WSS facility – from loan application to purchasing supplies, to coordinating the construction of the WSS facility – was the sole responsibility of borrowers. The loans were disbursed in-cash to the borrowers who then were responsible for hiring their own foremen and/or masons. KBMI would provide the list of full specifications and materials needed along with the cash disbursement to the borrower. Borrowers could purchase the materials directly from material shops, or (most likely) through the hired foremen and/or masons. When KBMI saw these contractors were benefiting from employment and generating revenue, they decided to incorporate these services into their own business model.

Since 2014, KBMI has reached nearly 60,000 people through its WSS loans.

In 2019, KBMI expanded its business model from a savings and loan-only cooperative into one holding with three subsidiaries: savings and loan cooperative (Kopsyah), retail cooperative (Kopmen), and services cooperative (Kopjas). Each subsidiary has its own business line and income streams. Clients apply for the MTS or MTA loan via the loan and savings cooperative (Kopsyah) and the loan is disbursed in-kind directly to the supplier (Kopmen). The supplier provides the materials required to build the improvement and coordinates with the services cooperative (Kopjas) to arrange for contractors to deploy the construction work by their foremen and masons. These material shop owners are members of Kopmen and act as the sole project executor, responsible for the end-to-end process of project delivery, buying supplies from distributors/suppliers, managing, and supervising the masons in the field, and most importantly, managing the cash disbursed by KBMI.

59,548

People reached

\$7.4 M

Capital mobilized

16,840

Loans disbursed

100%

Women borrowers

\$395

Average loan size

99%

Repayment rate

KBMI's WSS lending model is effective

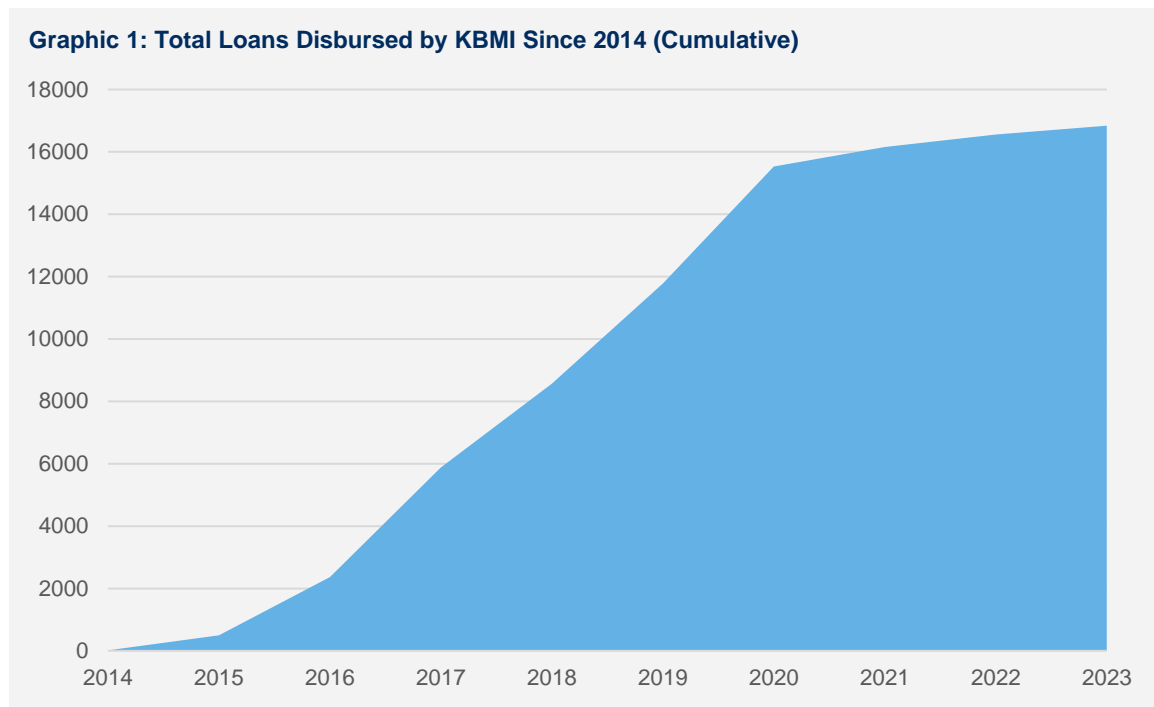
A comparison between different models for loan disbursements (in-cash, in-kind using a third party, and in-kind using internal contractors) showed that the KBMI model was the most effective, especially in ensuring the quality of the WSS facilities constructed. When compared to two other approaches of Water.org MFI partners in Indonesia, KBMI's model offered the most benefits to the partner institution as well as the borrowers.

KBMI's in-kind model provides a one-stop-shopping approach where clients can obtain the WSS products and services through KBMI without waiting for other institutions in the WSS supply chain. As the supply and construction services are managed by their other business lines, KBMI can ensure the facilities are constructed according to the correct standards and are used for approved purposes.

KBMI is also able to provide options for non-members. As a loan and savings cooperative, KBMI must exclusively serve its members, especially when providing loans. Whereas the retail cooperative (Kopmen) and service cooperative (Kopjas) can also serve non-members who are able to obtain WSS products or services via non-lending methods, such as cash.

Approach	In-Cash	In-Kind via third-party	In-Kind via Internal Contractors (KBMI)
Description	Disbursement of WSS loan in cash – cash is given directly to the borrower	Disbursement of WSS loan in the form of goods – cash is received & managed by the third party	Disbursement of WSS loan in the form of goods – cash is received & managed by the contractors
Strengths	<ul style="list-style-type: none"> • Shorter loan processing time • Less monitoring requirements • Clients have the flexibility to choose their preferred contractors or materials 	<ul style="list-style-type: none"> • Lower risk of fund misuse • Guaranteed quality (by using trained masons, expert guidance) • Transparent loan process • Loan progress and impacts are tracked 	<ul style="list-style-type: none"> • Transparent loan processes • Loan progress and financial outcomes are tracked • Lower risk of fund misuse • Lower risk of contractor turnover due to contract terms • Lower risk of customer complaints due to standards set by the Quality Control Officer • Contractor services and materials serve as additional sources of revenue • More stable work opportunities for the cooperative
Weaknesses	<ul style="list-style-type: none"> • Higher risk of fund misuse by the borrowers • Loan progress and impacts not traceable • Higher risk of facilities not meeting construction standards 	<ul style="list-style-type: none"> • Longer loan processing time • Dependence on third-party availability • Risk of client complaints, which may impact the loan quality 	<ul style="list-style-type: none"> • Longer loan processing time • Higher cost of the materials due to contractor recruitment

Despite a slowdown in KBMI's loan performance due to the COVID-19 pandemic in 2020, KBMI members continue to take out MTA and MTS loans, with 16,840 loans disbursed as of April 2023 (see Graphic 1).



Households are benefiting from KBMI's WSS loans

In 2021, a remote survey was deployed to 60 households that acquired loans from KBMI for WSS purposes. The results of the survey show that borrowers have experienced significant improvements in their water supply and sanitation-related facilities since taking out their loans.

- **97%** of borrowers stated that their new WSS facilities meet their daily domestic needs.
- **89%** say water quality is better than before. The top three improvements reported were:
 - Less sickness in the family
 - Water tastes better
 - Water doesn't smell bad
- **97%** of survey respondents who received new a sanitation facility report improvements in privacy, ease of managing menstruation, accessing the facility when they need to, and sense of safety.
- **90%** feel that water and sanitation loans improved their quality of life.
- **78%** say it's less stressful to manage household water because they are less worried about having enough, no longer have to wait in line, and are less worried about illness.

Of the households with children:

- **49%** say the safety of their children has improved.
- **67%** report their children have better hygiene.

Borrowers who received WSS loans are satisfied with the services provided by KBMI. Borrowers surveyed report being satisfied with the ability to report to customer service if problems occurred during the loan process and with the ease of accessing water and sanitation loans. This satisfaction is not only related to the service, but also the size, loan tenor, and interest rate.

- **94%** of borrowers claimed their facilities are fully functional.
- **86%** are satisfied with the cost, quality of the improvement, amount of water, water quality, hours of water reliability, convenience, tariffs, and ability to use improvement for what they want.
- **87%** reported they have sufficient funds to create new and improve their existing WSS facilities.
- **83%** find it easy to repay loan installments and never miss a payment.
- **85%** do not feel burdened with the loan installments nor do they feel the need to have certain coping mechanisms to repay the loan, such as skipping a meal or missing health expenses.

KBMI borrowers attaining safe water or sanitation at home

Safe water at home for Sani



Sani and her husband are parents to four children in a small peri-urban village in western Indonesia. Their home lacked access to safe water, affecting their ability to earn income, their children's education, and their sense of safety. Collecting water from a public well required Sani and her daughter to walk up to four trips a day, which was unsafe and took time away from earning income. Sani learned about KBMI's water and sanitation loans through a self-help group in her community and decided to act. Through access to affordable financing, Sani's family installed a water tap at home. This has allowed Sani time back in her day to have a job that contributed to her family's income, and her children are able to go to school.

Sanitation success for Anah



Anah lives north of Jakarta and runs a small snack business out of her recently renovated home that she shares with her husband and two children. For four years, they had to use their neighbor's bathroom. Anah's health issues prevented their family from being able to afford the cost of installing a bathroom at home. Anah's friend told her about small, affordable loans for water and sanitation offered by KBMI. As Anah's health improved, she was able to apply for a loan and build a private bathroom at home. Now, Anah's family no longer relies on their neighbor for a bathroom to use and can focus her energy on her snack business.

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Zainab's water and sanitation transformation



Zainab lost her husband and lives with her children and grandchildren. To make ends meet, she runs a waste collection business and raises chickens, ducks, and goats. Her house didn't have running water or a private bathroom, affecting her growing family's health and safety. After 16 years of enduring these challenges, Zainab applied for a loan from KBMI which she used to build a water tap and bathroom at home. With her family's help, Zainab can pay off her loan over two years and

focus her time on running her businesses.

Conclusion

KBMI's approach to WSS lending is successful

Evidence from SPIRE's assessment shows that all relevant parties, the beneficiaries, and the suppliers/construction partners have benefited from KBMI's WSS loans. KBMI's supply chain model has become a source of revenue for their business, allowing them to expand beyond solely providing financial services. This model allows them to engage with contractors more closely and strictly maintain the quality of the WSS facilities being constructed. The high satisfaction rate from the borrowers and regular income from WSS projects for the suppliers and construction partners are some of the key impacts of this approach.

The in-kind approach may not be easily replicated

Although it may be the most recommended model to assure construction quality, the KBMI model may be difficult to replicate with Water.org's other MFI partners in Indonesia as it requires a significant commitment from management, business flexibility, and a regulatory framework to allow the institution to incorporate the WSS supply chain processes. However, this approach could inspire other cooperatives to create subsidiaries that consist of multiple business streams.

KBMI will expand WSS loans through the in-kind approach

While their WSS lending portfolio performed poorly during the pandemic, KBMI will continue to serve households' water and sanitation improvement needs through the non-lending approach offered via the retail cooperative (Kopmen) and services cooperative (Kopjas) by expanding their operations in additional branches across other provinces in the country.