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RESEARCH BRIEF

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PERU

CASE STUDIES IN SANITATION MICROFINANCE

BACKGROUND

Creating Sanitation Markets Initiative (CSMI) is a multi-stakeholder effort led by the World Bank's Water and Sanitation Program (WSP) in Peru. The initiative aims to develop sanitation markets in target demographics to improve access to and quality of sanitation services in those areas and to develop market models that can be replicated in other locations. Since the end of 2007, the project has been implemented in four pilot zones within the regions of Cusco, Cajamarca, Ancash, and Callao. USAID's Hygiene Improvement Project assisted in the implementation of CSMI with targeted technical support in monitoring and evaluation and knowledge management and hardware options. This report examines two promising project activities in the microfinance sector: 1) activities with the Caja Municipal de Ahorro y Crédito del Cusco (CMAC Cusco), a municipal savings and loan fund owned by the municipal government of Cusco, and 2) activities to establish village banks that administer loans for household sanitation improvements in Cajamarca.

CMAC Cusco was chosen as a case study because it was by far the most successful formal financial entity in the four CSMI pilot areas making loans for household sanitation improvements. The village bank experience in Cajamarca warrants a case study because it is a model that can reach the poorest segments of a population with credit. This paper presents experiences in Cusco and Cajamarca with the target market and offers recommendations on potentially replicating these experiences.



THE WORLD BANK'S WATER AND SANITATION PROGRAM

Improving access to sanitation in pilot regions in Peru included enhancing financing options as well as expanding sanitation products available for purchase. Here female customers receive information about financial products.

CUSCO—CHINCHERO DISTRICT

In Cusco, the project's target population came from rural and urban areas of the Chinchero District where the main economic activities are agriculture, crafts, small business, livestock, and services related to tourism. During 2009, CMAC Cusco disbursed 145 loans for household sanitation improvements, adding up to a total amount of US \$198,753 (\$/558,000 in the local currency)¹ or \$1,371 average. Household survey data suggest, however, that large differences exist between rural and urban areas in terms of actual loans. According to the survey data, the mean loan in urban areas was \$1,010 and the mean loan in rural areas was \$450. The respective mean monthly payments were reported at \$100 in urban areas and \$45 in rural areas. These



Sanitation options are displayed in a Cusco marketplace as part of Adventist Development and Relief's sanitation marketing promotion activities.

loans reached approximately 7 percent of the 2,000 households in Chinchero. Based on the average income level, CMAC considers that a significant portion of the population in this region qualifies for access to home improvement loans.

CMAC Cusco is a leading financial institution that has developed credit technologies to reach micro, small, and medium size businesses. CMAC also has instituted home improvement loans that have been used to serve clients with home sanitation needs.

Within financial institution operations, microcredit loan officers mitigate credit risk by determining applicants' creditworthiness and borrowing capacity, including a socioeconomic analysis through a field visit. Clients must meet three essential requirements: 1) develop an economic activity that generates income; 2) demonstrate ownership of property where sanitation facilities will be installed; and 3) have good references in their community and/or the financial system (credit history). The amount of the loan depends on the client's cash flow and needs. CMAC Cusco finances 100 percent of the required budget for the sanitation improvement, which is usually between \$178 and \$1,780. The bank accepts loans up 18 months, but terms are usually between six and 12 months, with monthly payments between \$35 and \$70. The loan's monthly interest rate is 2.4 percent, and to date there have been no problems with repayments. Application rejection rates are low (10 percent approximately), and the principal reason for rejection is an applicant's poor references in

his community and/or the financial system. The funds are disbursed in cash directly to the loan applicant, a process that does not guarantee that the borrower will invest the money, as intended, in sanitation. Loan officers are responsible for verifying how loans are used, a control that is not very effective.^{2 3 4}

CMAC Cusco has participated in some marketing activities, but Adventist Development and Relief (ADRA), the implementing NGO for the initiative in the region, has executed most of the sanitation promotion activities. The target market requires specialized social marketing skills that the financial institution does not have. CMAC considered paying commissions to sanitation promoters who brought clients for household sanitation loans, but this idea was dismissed.

Increasing access to financial services at the base of the economic pyramid in Chinchero faces several challenges. One of the most relevant is geography, given the financial institution's infrastructure. CMAC Cusco has good coverage in the region of Cusco, but its branches are still located only in urban areas. To reach rural areas loan officers need to travel, which increases costs and time spent per client, reducing the incentives for the officers to visit rural areas. Moreover, CMAC Cusco has not developed new credit approaches that respond to the seasonality of rural incomes, making it difficult to reach clients whose primary source of income comes from agriculture.

CAJAMARCA—NAMORA AND LA ENCAÑADA DISTRICTS

In Cajamarca, the project is implementing a village banking model that, during 2009, disbursed 15 loans with a total value of \$1,235 or an average of \$82 per loan.⁵ The project targets the rural and urban areas of Namora and La Encañada where 29 percent of the surveyed population declared agriculture as their main activity; other activities are concentrated in labor, homemaking, and carpentry. With only 43 percent of the population not in extreme poverty, the region is not a high priority target for formal financial institutions, as relatively few households qualify for access to loans in the formal financial market. Moreover, a segment of the population in this zone benefits from *Juntos*, a government anti-poverty social program that provides a bimonthly subsidy of \$71 to poor households that qualify by meeting and maintaining certain health and

social criteria—e.g., vaccinations for children, children in school, etc.

CARE/Peru is the implementing NGO for CSMI in Cajamarca, and is developing a Village Banking Model to provide low-income households financial alternatives for investing in sanitation. The NGO is forming “Comités de Ahorro y Crédito,” which are self-help savings and lending groups of five to 10 members, usually female heads of households from a community. To form the groups, individuals select and accept one another, with some restrictions (e.g., members cannot be family). The NGO does not influence the selection of members. The members administer the groups, elect their leaders (board of directors), and establish their own regulations. In addition to providing its members access to capital, the model empowers and educates bank members. Within their operations, the groups can receive capital from an external source as well as savings from the group members and provide loans, using a collection repayment system based on social peer pressure in the community.

The lending model has a cross-guarantee system whereby each self-help savings and lending group member ensures the loan of every other member. Today, in Cajamarca, nine of these groups are operating. To set up the initial fund, each of the group members must buy six stocks valued at \$3.60 each. Contributions are made as follows: \$11 (three stocks) in the first month, \$7 (two stocks) in the second month, and \$3.60 (one stock) in the third month. Furthermore, the CSMI through CARE contributed seed capital to each group, which increased their resources. Currently, the managed fund of each group varies from approximately \$530 to \$2,200.⁶

The main objective of the group is to make loans primarily to its own members, but the group can also decide to let other community members access credit. The first loan to any borrower must be used to improve household sanitation—buying materials or paying for labor (the amount used for labor cannot exceed 25 percent of the credit). An individual's second loan can be for other needs such as working capital. The monthly interest rate is 2 percent for group members and 2.5 percent for nonmembers. Credit conditions are flexible; the only requirement for a loan disbursement is that the loan must be accepted by the majority of the group members. All group members guarantee each other even if the borrowers are not members, and to date, the

system has had no problems with repayments. Amounts and loan terms are variable; amounts are usually between \$35 and \$177 with terms ranging from nine to 12 months. Social pressure has proven effective in ensuring that the loan is used for its original purpose—sanitation. Due to the small size of the loans, sanitation investments by a family are generally made in phases, with the first credit initiating the household sanitation installation, and future small credits helping to complete installation.

CARE/Peru is also in charge of promoting and marketing sanitation in the region. In addition to forming self-help savings and lending groups, its functions include stimulating demand and supply for sanitation solutions, providing financial and technical training to targeted communities, and monitoring the performance of the groups. Promotion includes showing how sanitation investments benefit family health. However, motivation for sanitation investment in Cajamarca (and in Cusco as well) is strongly related to other factors such as increasing social status, self-esteem, property value, or income (in cases where a family rents out part of its property). Another important aspect of the Cajamarca experience is the supply of sanitation goods and services. The target market is usually located in



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CARE/Peru used the Village Banking Model to provide low-income households a means of investing in sanitation. Loans of small amounts enabled families to improve their sanitation facilities in phases.

communities that lack well-stocked hardware stores, which increases the household costs for sanitation improvements by adding the cost of transporting materials.

It took CARE/Peru six months to launch the model in the region. During these six months it started up the self-help savings and lending groups (one month approximately), created the funds through group savings (three months approximately), and then monitored and supported the groups. Meanwhile CARE worked at stimulating popular demand for sanitation. Considering that each village bank has no more than 10 members, it will require formation of many groups and a long term commitment to have significant regional impact. Most of the population that decides to invest in sanitation wants pour-flush toilets and bathrooms instead of latrines, but many lack access to adequate water and sewer networks. These households can use an on-site sanitation technology that does not require a network connection, but a flush toilet will increase water bills.

CONCLUSIONS AND RECOMMENDATIONS

Cusco

- The implementation of a market model with formal financial system intervention is viable in a case like Chinchero, where much of the population has sufficient income to meet lending standards. In Chinchero (Cusco) the average income level is high enough to permit much of the population to access credit in the formal financial market. The average loan size reported earlier demonstrates that CSMI is reaching the higher income segments, which are installing bathrooms with toilets, showers, sinks, tiling, and sometimes water heaters.
- For the most part, middle and lower income families are not accessing formal credit. In particular, the key target segment of the population—those in the \$88 to \$200 per month income level—is not being reached by the formal financial industry.
- CMAC Cusco's participation in performing other sanitation market functions has been less than had been hoped: no special financial products have been tailored to the home improvement or sanitation loan market, no formal promotion of sanitation loans has



As part of their sanitation marketing efforts, NGOs ADRA and CARE created different types of communication products for urban (left) and rural audiences. The ads take into account elements of the local culture to convey the sentiment that if you have a throne in your house you will feel like a king.

taken place, and no system exists to pay commissions to promoters or hardware stores that provide loan clients.

- Promotion and marketing functions for sanitation products and services are critical, and the financial institutions are not the organizations best suited to take on these activities.

Cajamarca

- In Namora and La Encañada (Cajamarca), the average income level does not permit community members to access credit in the formal financial market, but they have sufficient income to allow them to access credit via alternative credit models.
- The Village Banking Model is increasing the population's access to financing alternatives, but critical barriers still remain for replicating sustainable village banks related to a population's profile and credit terms. Notably the target market usually has a low level of education and requires significant investments in training to be able to operate a village bank.
- Seed funding from CSMI has made the village banks viable, and significant continued external investment (funds) will be required to build capacity in each village bank to enable it to function sustainably.
- Implementing the Village Banking Model needs an intermediary (CARE in this case) to promote the formation of the group and provide training and monitoring, which requires resources.

General Conclusions

- Financial solutions should be targeted to population segments according to their income level. Reaching all income levels of a given population requires additional financing alternatives such as group lending or subsidies. In particular, the key target segment of the population—those in the \$88 to \$200 per month income level—is being reached on a small scale in Cajamarca. The initiative still needs to figure out how to reach that segment with a viable cost-effective financial product.
- The higher income households can be reached by the traditional financial sector. A second segment can access credit directly from hardware stores (depending on the private sector's resources and level of involvement in each zone). The population at the next lower income level can be reached by a Village Banking Model. Finally, people in extreme poverty can benefit from a subsidy system.
- The Peruvian financial system has a high level of liquidity. Increasing competition boosts financial institutions' incentives to develop innovative products for low income populations, which should stimulate the development of financial products focused on sanitation.
- There are educational as well as financial challenges to establishing sanitation markets within these populations. Cultural characteristics and educational levels in each zone make promotion a key factor for success. An investment in social marketing is needed



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Part of CARE/Peru's work in Cajamarca was stimulating demand for sanitation products. Most people favored bathrooms reliant on running water over traditional latrines.

- to stimulate demand for sanitation improvements that will create demand for financial services.
- NGOs have demonstrated effectiveness in small scale pilots, but they could have operational limitations when trying to scale up.
- Materials are supplied mainly through small, district-level hardware stores that until now have met demand requirements. Given the current size of the market, major national suppliers have no incentive to become involved. However, an increase in purchases would motivate greater private sector involvement as a consequence of market forces.
- It does not appear that financial institutions can establish sanitation markets or provide market leadership. It is likely that a third party (e.g., an NGO, government entity, private sector group) is necessary to rapidly start up new sanitation markets.

Recommendations

- WSP in Peru should generate cost data for the Village Banking Model and describe requirements for replication. A third party entity will be needed to help build local capacity in future village banking endeavors.
- The CMAC Cusco experience should be used to develop a realistic role and activity set to engage other financial institutions in creating sanitation markets.
- CSMI should work with CMAC Cusco to design financial products that can reach the \$88 to \$200 per month demographic.
- Installation of water consuming bathrooms will lead to increased monthly water bills. CSMI should consider these monthly water costs in developing and marketing sanitation solutions to different market segments, particularly the poorest.
- Partnerships or coordinated work with the government, which is the supplier of water and sewer networks, could greatly increase the rate of growth of the household sanitation market and increase the impact of the project.
- It appears that market creation in Peru requires the intervention of a third party, and WSP should identify and groom potential organizations to take on this sanitation market creation role. Do not expect sanitation market leadership from financial institutions, which are motivated by increasing their home improvement loan portfolio.

This brief is adapted from the executive summary of a longer case study about these two microfinance activities, "Experiencia de la Iniciativa 'Creando Mercados de Saneamiento' con la Caja Municipal de Ahorro y Crédito del Cusco y el Modelo de Banca Comunal en Cajamarca," which is available in Spanish only. The author, Galo Perich, is a graduate student at the University of Michigan's Stephen M. Ross School of Business. His work with HIP and WSP was supported by the William Davidson Institute 2010 Global Impact Internship Program.

ENDNOTES

- ¹ Directo Investigación y Marketing. *Segundo Reporte de Monitoreo—Iniciativa "Creando Mercados de Saneamiento"* Presentación. Feriari 2010. Graphics 10 and 11. US \$1 is equal to 2.83 Peruvian Nuevo Sol (S/).
- ² Monge, Fernando. "Interview with credit manager of Caja Municipal de Ahorro y Crédito del Cusco." Personal Interview. June 30, 2010.
- ³ Carbajal, Irma. "Interview with Urubamba's branch manager of Caja Municipal de Ahorro y Crédito del Cusco." Personal Interview. June 30, 2010.
- ⁴ Reynoso, Elizabeth. "Interview at Anta's branch of Caja Municipal de Ahorro y Crédito del Cusco." Personal Interview. July 1, 2010.
- ⁵ IBID. Graphics 9 and 10.
- ⁶ Posadas, Olinda, and Nancy Vasquez. "Interview with CARE/Peru representatives who work for the Creating Sanitation Markets project in Cajamarca." Personal Interview. June, 21 2010.

The **Creating Sanitation Markets Initiative**, headed by the Peruvian Government through the Vice Ministry of Construction and Sanitation, SEDAPAL, the World Bank, the Swiss Cooperation Agency for Development, USAID, the America Fund, the Fondation Ensemble, and the World Bank Water and Sanitation Program, seeks to stimulate the development of local markets of quality sanitation for low-income populations in five pilot areas of the country.

The **USAID Hygiene Improvement Project** is a six-year (2004-2010) project funded by the USAID Bureau for Global Health, Office of Health, Infectious Diseases and Nutrition, led by the Academy for Educational Development in partnership with ARD, Inc., the Manoff Group, and the IRC International Water and Sanitation Centre based in the Netherlands. HIP aims to reduce diarrheal disease prevalence and improve child survival through sustainable improvements in hygiene.

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