

# XacBank's Eco-Banking Department



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## AFFORDABILITY MECHANISMS AND ENERGY ACCESS

### Improving Air Quality with Credit, Carbon Finance and Smart Subsidies

Ulaanbaatar, Mongolia is the coldest capital city in the world. During blistering, eight-month winters, households meet their heating needs by burning coal in traditional stoves. As a result, the city also ranks as one of the most polluted urban areas on the planet. In 2009, XacBank, Mongolia's largest microfinance institution (MFI), made a commitment to address this public health threat head-on. To

date, XacBank has facilitated the ownership of over 80,000 efficient heating stoves and insulation blankets in Ulaanbaatar's Ger District. XacBank's evolving model combines innovative approaches to product development, quality assurance, consumer education, logistics and distribution. XacBank is also among the first MFIs to leverage carbon revenues to help sustain operations.

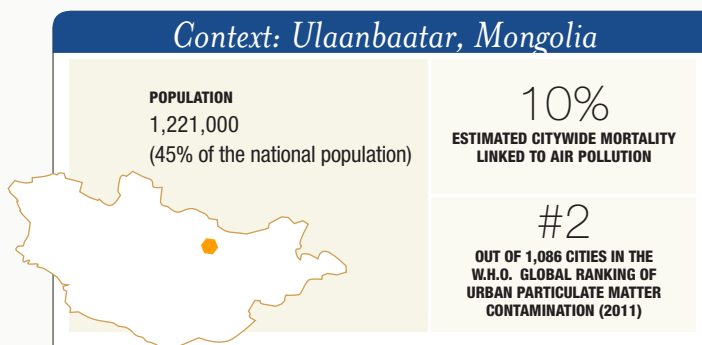
CHANGING LIVES THROUGH ACCESS TO FINANCE  
FOR CLEAN ENERGY AND WATER



*“If we can offer loans that consistently beat the market rate of consumer lending, we hope to be able to bring access to the majority of people who are interested in purchasing these products.”*

—Isaiah Usher, Senior Officer of Communications, Eco-Banking Department

## INSTITUTION AND CLIENT PROFILE



Founded in 2001, XacBank is the largest provider of financial services to low-income households and individuals in Mongolia. The bank serves 460,000 active clients, the majority of which reside in the capital city of Ulaanbaatar. XacBank primarily focuses on retail banking services, but the institution continues to diversify and to reach new clients, meeting the different needs of enterprises and households. Within the region, the bank was an early pioneer of mobile and internet banking, and has rapidly expanded its small and medium enterprise (SME) portfolio, serving growing businesses, many of which started as microcredit clients. XacBank follows an individual lending model. Half of all of its clients are women.

XacBank has established an extensive branch network within the Ger District, named for the semi-portable, traditional living structures that residents occupy. This densely populated, low-income settlement absorbs 10,000 new households per year and constitutes 60 percent of the city's total population. The Eco-Banking department operates exclusively in the district through a neighborhood-based network of product centers

and bank branches. XacBank estimates that more than half of its Ger District clients are formally unemployed. Most participate in the informal economy, running small businesses, selling household products, growing vegetables and engaging in other forms of low-level service provision. The average monthly household income is 300,000 tugriks (USD \$220, or \$7 per day). During Mongolia's harsh eight-month winter, the temperature averages -20°C. Both the extremity and duration of the season necessitate intense energy consumption at the household level. Because of its high energy density and the low supply of wood within the city, coal is the predominant heating fuel. The typical household burns over five tons of coal fuel per year, using traditional stoves for both space heating and cooking. The high level of indoor and outdoor air pollution produced is responsible for near epidemic levels of cardiac and respiratory disease, birth defects and cancer. One recently published study estimates, conservatively, that ten percent of all mortalities in Ulaanbaatar can be linked to air pollution.<sup>1</sup> In addition to the severe health burden, coal consumption constitutes a significant and highly inelastic expenditure, with households on the low-end of the income spectrum spending up to 40 percent of their earnings on fuel during the heating season. Electricity, by contrast, is relatively affordable due to government-subsidized tariffs, and adequate generation and distribution infrastructure deliver a generally reliable level of service. Therefore, the costs associated with access to electricity are comparatively low.

# AFFORDABILITY MECHANISM: ECO-BANKING AND PRODUCT SUBSIDIES

As of June 2012, XacBank's Eco-Banking department had directly facilitated the sale of 63,380 highly efficient heating stoves, and 17,470 improved ger insulation blankets.

## The Eco-Banking Department

The XacBank management team became interested in financing clean energy products in 2008, when they realized that many of their low-income clients were spending large amounts of their household income on fuel. Acting with leadership and vision, XacBank dedicated a team of two part-time

staff to investigate the opportunity for clean energy finance during 2008 and 2009. XacBank reached out to MicroEnergy Credits (MEC) a global enterprise that provides growth funding from carbon finance for MFIs. MEC has made critically important contributions to the initiative's development and growth from the earliest stages. MEC assists MFIs in linking their energy portfolios to carbon markets in order to establish ongoing revenue that will support program scale and sustainability. The organization has been actively involved in the development of the Eco-Banking department's operations and monitoring model, in addition to fostering carbon market linkages.

### BOX 1. TECHNOLOGY

#### *High Insulation Ger Blankets and Improved Heating Stoves*



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#### GER BLANKETS

##### SERVICES: HOME INSULATION



##### ENERGY HARDWARE FELT

##### SYNTHETIC ALTERNATIVES (OCCASIONAL)

##### OPERATING LIFE

- Insulation 10 Years
- Low-Cost Outer Cover Every 2 Years
- Two-Year Warranty

#### HEATING STOVES

##### SERVICES: HOME INSULATION



##### ENERGY HARDWARE STEEL AND CAST-IRON MATERIALS

##### CERAMIC INTERIOR

##### OPERATING LIFE

- 10+ Years
- Two-Year Warranty

Blankets are a traditional component of ger construction, covering the outside of the structure to provide insulation. The blankets distributed through the Eco-Banking department meet high performance and quality assurance standards for both insulation and water content, but are functionally indistinguishable from conventional designs.

Compared to standard models, improved heating stoves are designed to circulate and draft heat for longer periods of time, and have higher heat retention, resulting in greater efficiencies. The Eco-Banking department offers two stove models to customers. The models perform similarly, in terms of efficiency, though have slightly different use characteristics. One model is a top-lit updraft stove, where fuel is loaded before a fire is made on top of the fully loaded stove. In the second, the stove is lit with wood before the main fuel source is added.

<sup>1</sup> R.W. ALLEN, ET AL. "AN ASSESSMENT OF AIR POLLUTION AND ITS ATTRIBUTABLE MORTALITY IN ULAANBAATAR, MONGOLIA," AIR QUALITY, ATMOSPHERE AND HEALTH (AUGUST 2011)

At the same time, XacBank also reached out to one of their investors, FMO, the Dutch Development Finance Institution, that proposed a loan fund for clean energy products. Beginning in 2010, following word of XacBank's successful initial pilot, the Millennium Challenge Corporation (MCC) contacted XacBank suggesting the idea of a targeted subsidy to rapidly scale up the use of the products and dramatically reduce air pollution within two years.

Subsidies had been tried before in Mongolia for stoves and blankets without success. Having a financially sustainable distribution channel, owned by a highly trusted local brand like XacBank, could make the difference. Moreover, XacBank had an excellent monitoring and tracking system, both for its loans, and for carbon credit tracking. It could use this tracking system to manage the detailed reporting required for the subsidy as well. MCC and XacBank formed a partnership.

XacBank would provide the products through its branded product centers. MCC would provide a subsidy for each stove sold. In addition, MCC provided funds which covered the incremental cost of the XacBank program beyond what was covered by the carbon finance provided by MEC. This financing allowed XacBank to scale up more quickly than originally planned; it implemented 40 product centers by the end of 2011.

The scale-up also had a catalyzing effect on the project's carbon emissions: in 2011 and 2012, the project reduced over 80,000 tonnes of carbon emissions. In 2012, Citi signed an agreement to purchase 1.17M tonnes of carbon offsets from MEC for the Mongolia project, which will provide funding for the program to continue through 2019.

By demonstrating an effective way to market environmental and health-enhancing products to low-income households, XacBank unlocked its ability to partner successfully with the other agencies, and a host of benefits to its core clientele. The ADB, GIZ, MCC, local government agencies and other organizations played key roles in supporting the success of the program, by establishing supply chains and verifying the impacts on end-users, by developing technology, and by providing subsidies.

Eco-Banking activities were originally embedded within XacBank's consumer lending department. However, in 2011, as a consequence of growth, the unit split off into a separate department within XacBank's organizational structure under the Retail Banking division. The

department's sales and finance activities are primarily conducted for the duration of the heating season, which lasts from August to June.

In collaboration with its partners, the Eco-Banking department has directly fostered the entire value chain for energy efficient products, including product development, importation, distribution, logistics, marketing, consumer education, sales, end-user finance and after-sales service.

## Energy Product Selection

The original basis for the Eco-Banking program was, and in large part remains, the realization of air quality improvements in heavily polluted Ulaanbaatar through the displacement of domestic coal combustion. As a result, from the outset of the program, the department narrowed its focus on heating and cooking solutions that would reduce coal consumption through improved efficiency and conservation.

### BOX 2. QUALITY

#### *About Quality Standard Certification*



BLANKET BEING MADE ©XACBANK 2011

The improved ger blankets are sourced locally from 16 different producers that have been certified for high quality standards by the Millennium Challenge Corporation. Two different models of stoves are sourced from two foreign suppliers. Selenge Construction, a Mongolian company, imports one model from Turkey and Royal Ocean imports a stove model from a Chinese manufacturer.

These suppliers were selected by MCC based on quality review, cost, and the capacity to provide shipments at volumes matching adoption targets. XacBank works with local distributors who receive and warehouse incoming shipments and are directly involved in stove installation.

**FIGURE 1. COST ENERGY PRODUCT LOAN AND BENEFITS**

HIGH INSULATION GER BLANKET		IMPROVED HEATING STOVE	
30% EFFICIENCY GAINS	3.3 YEAR SAVINGS PAYBACK PERIOD	45% EFFICIENCY GAINS	3 MONTHS OR LESS
EXPENDITURES W/ BLANKET 95,550 MNT (USD \$70)	EXPENDITURES W/O BLANKET: 136,500 MNT (USD \$100)	EXPENDITURES W/ STOVE 68,250 MNT (USD \$50)	EXPENDITURES W/O STOVE 136,500 MNT (USD \$100)
MONTHLY FUEL + LOAN PAYMENT 122,740 MNT (USD \$90)	MONTHLY SAVINGS 13,760 MNT (USD \$10)	MONTHLY FUEL + LOAN PAYMENT 75,800 MNT (USD \$55)	MONTHLY SAVINGS 60,700 MNT (USD \$10)

While the principal objective was to bring about a measurable decrease in air pollution, the planning team realized that the initiative would succeed only to the extent to which customer demand had been strongly established. An effective consumer

education and marketing strategy focused on raising awareness would help cultivate consumer interest. However, the team understood that products must also offer additional user benefits that answered more immediate household needs and concerns if penetration was to occur on a significant scale. In their view, solutions should not only improve air quality, but also reduce the economic burden of fuel consumption experienced by ger households.

Working with partners GIZ and ADB, XacBank selected two products that would deliver both pollution reduction and savings: improved ger blankets and high efficiency stoves. Ger blankets are common features of ger design that cover the external area of the structure to contain heat loss. Improved ger blankets are produced following specific performance guidelines that boost insulation. High efficiency stoves replace conventional stoves for space heating and cooking, and use less coal to generate comparable levels of heat.

## END-USER AFFORDABILITY: SUBSIDIES AND CREDIT

Achieving end-user affordability is critical to developing demand, and therefore one of the principal bases of product selection and program design. The average market price for an improved ger blanket is 850,000 MNT and 350,000 MNT for high efficiency stoves (USD \$653 and \$267, respectively). These prices are substantial for low-income end users, with stoves amounting to one full month of average income, and blankets amounting to three months of average income for Ger District residents. In order to reduce costs and increase demand, MCC has funded significant end-user subsidies for both products. Customers pay 30 percent of the market price for stoves and 35 percent of the market price for ger blankets.

With the subsidy applied to all products, customers have the option of purchasing stoves and blankets either on a cash basis or with financing from XacBank. Because of the size of the subsidy offering, most products are purchased with cash. However, the con-

clusion of MCC's involvement in the Eco-Banking initiative at the end of 2013 will be accompanied by an immediate reduction in subsidy levels and a gradual shift of retail prices closer to market rates. As this process of de-subsidization progresses, the relative importance and use of the credit option is projected to increase.

Eco-Banking loans offered for both ger blankets and stoves share the same basic characteristics. All loans are offered with two-year terms at a flat, partially-subsidized interest rate of 17 percent (regular commercial loans are offered at an interest rate above 24 percent). Loan installments are paid by members on a monthly basis at any local XacBank branch. The purchased product itself serves as collateral, and no down payment is required. The bank is able to take on this apparent risk, in part, because all residents of Ulaanbaatar, regardless of occupation, receive fixed monthly public support payments from the government, which increases the likelihood of loan repayment.

## Consumer Education, Sales and Distribution

Since 2010, neighborhood product centers have been central to the Eco-Banking department's approach to customer outreach and education, sales and product delivery. Product centers serve as demonstration points where customers can directly interact with products and receive detailed information from trained sales staff. Product centers are housed within the very same ger structures in which clients reside. During the 2011-2012 heating season, 42 product centers were established in neighborhoods throughout the Ger District. Two Eco-Banking employees, one of whom is responsible for processing orders, and the other for product delivery, staff each product center. Employees of a public relations firm contracted by MCC carry out product demonstrations and promotions. The firm also directs local marketing campaigns to promote products through a variety of channels, including local television.

Sales, payment and product distribution and installation are all coordinated using a cloud-based tracking system "credit tracker" that was developed by MEC. This innovative application is fully integrated with XacBank's online banking system, and facilitates the entire workflow from order to installation, providing status notifications to all relevant staff and partners at different stages. For example, when a customer at a product center orders a ger blanket, the processor will create an invoice for the customer and refer the person to a local XacBank branch where they will make a payment or apply for a loan. Using a laptop computer, the processor enters the customer's data into a web-based application integrated with XacBank's MIS. All product centers have wireless internet allowing data to be immediately transferred to the branch. Once a client pays for a product or the loan is approved, the bank's MIS integrates the payment information with the client's information entered at the product center. This data is pulled into the credit tracker system at the end of each workday. The tracker stores full client information and is used to create delivery schedules. The status of outstanding orders is viewable on the tracker by all branch and product center staff.

When products are transferred to the customer, product center processors or delivery staff members enter the new status into credit tracker via the web user interface or the mobile phone application, closing out the order process.

### BOX 3. COST

## *XacBank's Energy Loan*



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#### HIGH INSULATION GER BLANKET LOAN

- Unsubsidized cost 900,000 MNT (USD \$660)
- Subsidized cost/principal loan amount: 550,000 MNT (USD \$400)
- Loan term: 2 years
- 17% Interest (declining)
- Monthly payment: 27,190 MNT (USD \$20)

#### IMPROVED HEATING STOVE LOAN

- Unsubsidized cost: 300,000 MNT (USD \$220)
- Subsidized cost/principal loan amount: 150,000 MNT (USD \$110)
- Loan term: 2 years
- 17% Interest (declining)
- Monthly payment: 7,550 MNT (USD \$6)

Individuals who wish to apply for a loan are referred to nearby XacBank branches by the sales agents that staff Eco-Banking department product centers. Prospective borrowers are not required to hold active accounts with the bank prior to taking on an energy loan. Loan applications are completed at branches and submitted to general loan officers within the bank's commercial lending department, who conduct an assessment of the customer's earnings, cash flows and assets to determine their ability to pay. Applications are typically approved within two weeks of submission, at which time the customer is notified via mobile phone or in person.

Due to the lower price and higher levels of savings of stoves, XacBank has observed that loans for these products are generally repaid more rapidly than loans for ger blankets.

There are process differences between ger blanket and stove distribution and installation that the tracker helps facilitate. When a payment is made for a ger blanket, a producer is notified via the credit tracker and transports the blanket to the product center. The customer is also notified by mobile phone when he or she should come and pick it up. Customers are responsible for transporting the blanket from the center to their homes, as well as for installation. Once the product has been exchanged, the processor completes the distribution process by indicating that the product has been delivered to the client via the tracker's web interface. A XacBank field officer then visits the household within two to four weeks to determine if the product has been installed and is in use, or if it is being stored to be used at a later date.

For stoves, the delivery and installation process is logistically more complex as a consequence of the product's physical characteristics. Stove distributors transport products directly to the client's home, rather than the product center, and are responsible for installing

the stove for the customer. Distributors can transport 12 to 17 stoves on a truck at one time. Credit tracker helps coordinate batch deliveries to nearby locations to reduce delivery and installation times, and associated costs. The product center delivery staff member accompanies the distributor in a separate vehicle and carries out two functions. The first is to input status changes into the tracker when the installation is complete, using a custom Android smart phone application. This allows for automatic updating of the credit tracker database to show that the product has been delivered and installed. The second is to remove the conventional stove from the household and bring it back to the product center, where it is dismantled and disposed of. Stove removal is a measure taken to ensure that pollution — specifically carbon — is reduced with efficient stove adoption, decreasing the likelihood that end users will revert back to conventional stove use. This process is a requirement of both XacBank's contract with MCC and the carbon agreement that XacBank has with MEC.

## CARBON CREDIT: REVENUE AND MONITORING

The carbon output that results from eight months of daily coal combustion is substantial, and therefore energy products that displace fuel have the potential to generate considerable offsets that can be sold in either voluntary or compulsory markets. MEC serves as the carbon aggregator for XacBank's project and negotiates purchase agreements on the bank's behalf for the carbon credits that are generated from the use of both ger blankets and efficient stoves. This revenue is used to expand and sustain the clean energy program.

MEC has been pivotal to the development and execution of XacBank's carbon program, not only by linking the bank to carbon markets, but also in helping establish the operational protocols for product delivery and end-user-monitoring. As already discussed, MEC led the development of the credit tracker application through which sales, payment, distribution and installation are coordinated. The efficiencies gained from this contribution alone enabled the Eco-Banking department to process greater sales volumes and expand its number of product centers from 4 to 42

between 2010 and 2012. Monitoring end-user energy behaviors is a critical element upon which the future receipt of carbon revenues is ultimately contingent.

In order to verify that clean energy technologies are being used on a regular basis, and that concrete emissions reductions are taking place, XacBank staff must maintain contact with adopters on a quarterly basis to survey the level of use that is taking place. Credit tracker streamlines this process and helps ensure that XacBank complies with, and even exceeds, the rigorous verification standards common to both voluntary and compulsory carbon markets. Customers are monitored four times per year, twice by phone and twice in person. Results of the survey are imported directly into Credit Tracker via MEC's custom android application.

The program's carbon monitoring component not only supports revenue generation, but also ensures that products function properly and are used on a consistent basis in the long-term. In this way, carbon monitoring and after-sales service are mutually reinforced.

# ANALYSIS: KEY DRIVERS AND SUPPORT FACTORS

## Subsidies Support Affordability

From the Eco-Banking Department's inception, consumer demand for high efficiency energy products has largely been sustained through substantial price subsidization by donors, most notably MCC. Subsidies, however, will not be offered on a permanent basis, and will be scaled down during the 2012 to 2013 heating season, and then further in 2013-14 when the World Bank takes over responsibility for administering the subsidies from MCC. There are concerns that previous subsidy levels might impact demand in the long-term by setting consumer price expectations that will be difficult to meet as subsidies decline. However, to date, they have been critical drivers of high volume.

## Low Operational Burden For XacBank's Branch Staff

A common challenge that confronts many MFIs that attempt to engage in the energy sector is the added operational complexity that comes with such an effort. How this complexity affects the roles and workloads of regular staff differs depending on program design and existing institutional capacity. Results can vary, but often new program obligations can overwhelm managers and loan officers, and therefore impact performance and ultimately decrease motivation and focus. In creating the Eco-Banking department, and establishing a product center staffing model, XacBank has largely removed the burden from branch level staff, confining their responsibilities to the core business practices of client assessment, loan disbursement and repayment collection. Also, MEC's tracker application is seamlessly integrated with the bank's MIS, and therefore does not require loan officers to enter energy client data separately.

## Demand Rooted in the Economic Benefits Realized by Clients

XacBank selected energy products that meet donor objectives (improved air quality), but also offer end users immediate economic value in the form of reduced fuel expenditures. Given the long duration and severity of the Mongolian winter, heavy coal consumption is a non-negotiable and significant household cost. The shift to improved ger blankets and efficient heating stoves results in immediate and measurable economic benefits for adopters. Importantly, both products are variations of existing household applications that have been fixtures of the Mongolian ger for generations. They are immediately familiar to end users in their purpose and functionality. The significance of familiarity should not be understated: low consumer understanding, combined with the force of existing conventions and behaviors are often significant barriers to adoption of clean energy technology by poor end users all over the world.

## Advantages of Urban Density

The goal of reaching energy poor customers and facilitating the transition to improved alternatives is challenging to accomplish in any context. However, there are several advantages to serving clients in concentrated urban environments when compared to remote rural areas characterized by low population densities. XacBank's product center approach benefits from high-levels surrounding foot traffic. Bank branches and product centers are close enough to each other and customers' homes that product payment and loan repayment do not impose high transaction costs or inconveniences for either customers or the bank. In terms of product distribution and installation, high density supports economies of scale, reducing operating costs and time for both Eco-Banking department staff and suppliers.

*As we continue to saturate the market with these two products, we'll be thinking about diversifying further into other products at around three years down the line."*

– Isaiah Usher, Senior Officer of Communications, Eco-Banking Department.



# FACTORS INFLUENCING SCALE

## Subsidy Substitution

As described above, the end-user subsidies that have been key drivers of demand to date are not permanent. Therefore, in order for demand and impact to be sustained in the future, XacBank must take measures to prepare for this transition.

The use and extent of subsidies reflects the primary program objective of the funders, which was to address the grave public health threat of air pollution in Ulaanbaatar through the dramatic and rapid reduction of particulate matter. This focus had important consequences for the program's design and implementation, and led to a prioritization of high volume sales in short time frames over long-term market development and maturation. While the objective of air quality improvement will remain central to the program's mission, the World Bank's involvement will usher in a greater emphasis on market development and program sustainability. An important element of this will involve a renewed focus on value chain investment, and the gradual realignment of retail prices to levels that have a stronger market basis. The World Bank has already begun work on a project that will help the Eco-Banking department make this transition.

The new mandate will elevate the goal of reducing product prices through design innovation and increased local supply. Indeed, XacBank seeks to boost local production of an alternative, less expensive stove model, which was developed with technical assistance from GIZ. The stove has similar performance characteristics, but costs much less than current imported stoves and can be sold profitably for a third of the price. In recent years, XacBank has focused more on SME financing, an area of business which it views with increasing strategic importance. The Eco-Banking department aims to play a more direct and active role in financing local producers of these stoves and thus increase supply of lower-cost stoves, ultimately displacing higher-cost, imported stoves.

In a reduced or post-subsidy context, finance will also have to play a more significant role in supporting demand. Higher end-user prices in the future will decrease consumer ability to pay with cash. XacBank is prepared to more actively promote credit as an alternative and to adapt its operations to accommodate a higher volume

of loans. XacBank's ability to transition the market from one that is driven by subsidies to one that is driven by consumer finance will be critically important to long-term sustainability and scale.

## Leveraging Carbon Revenues

Carbon revenues have a unique benefit to MFI energy programs because they provide a recurring source of capital, which is linked to customers continuing to use and benefit from the technology. Revenue generation from the sale of carbon offsets through both voluntary and compulsory markets has been a key program objective from the beginning, and is central to XacBank's sustainability strategy. The bank has maintained an active collaboration with MEC since 2009 to realize this goal. The amount of carbon funding to be realized depends on the carbon price, and changes in carbon price are continually updated in XacBank's carbon revenue forecast. XacBank signed its carbon purchase agreement in 2009, and received its first carbon funds shortly after its first sales in 2010. From 2011 to 2012, XacBank sold 94,215 tons of carbon dioxide in the voluntary market through MEC following two audits conducted in September and December of 2011. In 2012, Citi signed a 1.17M tonne purchase agreement for emissions reduced through 2019. MEC and XacBank are currently in the final stages of registering the project with the Clean Development Mechanism (CDM) which will enable them to sell credits into the European Emissions Trading Scheme, the largest compulsory carbon market in the world.

At present, carbon prices in both the voluntary and compulsory markets are trading at record low prices, and have limited projections for improvement over the next several years due to persistent uncertainty surrounding the future of multilateral carbon reduction agreements. Therefore, the bank has adjusted its expectations of carbon proceeds. Carbon revenue is still expected to remain an important part of the program's sustainability and growth going forward, even in low price scenarios. Since the program is fundamentally sustainable and using carbon finance for growth, it will grow faster in years that the carbon price is strong. In addition, XacBank will seek further co-financing from lenders and donors to grow and expand its sustainable distribution of clean energy products to low-income consumers and businesses.

## Closing: Lessons Learned

### *Sales increase when customers can experience the products directly*

Early on in its pilot period, XacBank promoted stoves and blankets during Mongolia's short summer season at outdoor markets. This method of marketing and engagement proved unsuccessful because it failed to demonstrate the tangible value of both products to prospective customers. In 2010, the Eco-Banking department switched to a product center approach that embedded outreach and sales in the immediate customer communities during the cold season. The product center provides a platform in which customers can experience the immediate benefits of its products. The shift to the product center approach resulted in dramatic sales increases, and has been a pivotal element of the model's overall success.

### *Institutional vision and leadership*

XacBank's management was committed to supporting Eco-Banking from day one. This provided the necessary support for XacBank to commit to this project, despite the risk and uncertainty about the future of Eco Banking if donor funding were to exit Mongolia. Furthermore, MCC was willing to invest the operational cost coverage necessary for scale-up and MEC invested a considerable amount of their own resources in developing the Credit Tracker application and tailoring it to XacBank's needs. All three parties took on risks and costs to commit to developing a program that will be sustainable in the medium to long term and that can overcome the significant barriers that MFIs face in developing carbon finance programs.

XacBank started the program as a financially sustainable department, without a reliance on donors or subsidies. With a sustainable business plan in hand, XacBank was able to demonstrate a significant ability to market energy systems. This foundation allowed partnership with donors to rapidly accelerate a fundamentally market-based program. With this foundation in place, XacBank has has the flexibility to continue to build as a sustainable enterprise.

*Thank you to the XacBank team for their collaboration in writing this case study*

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