



**Terwilliger Center for
Innovation in Shelter**



Technical Brief: Who Were the Clients in the Building Assets, Unlocking Access Project?



Introduction

The Building Assets, Unlocking Access project, implemented by Habitat for Humanity's Terwilliger Center for Innovation in Shelter in partnership with the Mastercard Foundation, provided institutional technical assistance on the development or refinement of housing microfinance products for low-income households to four institutions: Kenya Women's Finance Bank, or KWFT, in Kenya, and Pride Microfinance Ltd., Centenary Bank and Opportunity Bank in Uganda. The project, which ran from 2012 to 2018, aimed to enable low-income households living on US\$5 to US\$10 per day to access small, short-term loans with affordable payment schedules that would support incremental building and home improvements. The project also aimed to extend beyond the traditional scope of microentrepreneurs to include low-income salaried workers, wage earners, remittance recipients and pensioned retirees. At the close of the project, we considered whether the demographic profiles of the clients served by the project aligned with the target population, their initial housing situations and the outcomes of their housing loans, along with a few proxies for impact on quality of life as defined by the project's theory of

change. Separate impact evaluations entailing a robust statistical analysis were conducted in both Kenya and Uganda by an independent entity, Genesis Analytics. Here we attempt only to get a preliminary sense of impact by using clients' responses to baseline and follow-up surveys as proxies.

As part of the project's monitoring and evaluation plan, 444 housing microfinance clients were interviewed in a baseline survey, and 213 of these were interviewed again as part of the follow-up survey. Though the survey results are fairly evenly distributed across the four institutions, the results are heavily skewed toward Uganda, as Kenya is reflected only by KWFT (25 percent of the results). Each institution has a slightly different strategy for its housing microfinance portfolio, but the survey results allow us to review our understanding of who the housing microfinance borrowers are in Sub-Saharan Africa, what their housing situations are like, how they have used housing finance, and the impact these loans may have on their quality of life.

Demographics of housing microfinance clients

Client age

Clients ranged in age from 19 to 75, though the majority of clients (73.4 percent) were between the ages of 26 to 45. The average client age across all institutions was 39 years old (this varied very little among institutions). Interestingly, we observe that female borrowers are, on average, slightly older than male borrowers.

Gender

Female borrowers comprised 35-99 percent of the portfolios of participating institutions (with the 99 percent coming from KWFT, which exclusively serves women), resulting in an average of 56.5 percent of housing microfinance portfolios composed of women. Across the three Ugandan institutions, roughly 43 percent of clients were women.

Urban/rural

The distribution of participants by urban residents and rural residents based on address is a bit murky. A client's address can be an uncertain indication of residency versus the property toward which the loan funds will be applied. For this reason, our assessment was conducted based on which branch offices were accessed by borrowers, rather than by address. For the first four years of the project, KWFT focused on serving rural clients, moving to include urban clients only toward the end of the project. The Ugandan partners, on the other hand, serve primarily urban and peri-urban clients.

Snapshot of borrowers



	Uganda	Kenya	Cumulative average across Kenya and Uganda
Average age	38.9	40.6	39.3
Female borrowers	35-50.4%, avg 42.7%	99.1%	56.5%
Family			
– Marital status*	Married (69.5%)	Married (85.1%)	Married (71.5%)
– Number of kids	3.1 kids	2.3 kids	2.9 kids
– Number of people in house	5.1 people	5.1 people	5.1 people
Average daily income (US\$)	\$9.5	\$12.85	\$10.46
Average daily income (US\$)			
< \$5	38.1%	14.1%	30%
\$5-10	37.7%	61.6%	43%
\$10+	24.3%	24.2%	28%
Multisourced income	34.3%	53.2%	39.0%

*56.9 percent of KWFT clients and 7.6 percent of Pride clients did not answer the marital status question (marking it n/a). These were dropped from the calculation.



Marital status

Of those who provided information on their marital status, roughly 70 percent of clients indicated that they were married. An additional 19.6 percent indicated that they were single. Roughly 4.5 percent of clients reported their relational status as separated or divorced (the latter being the least common response). The remaining 4.5 percent indicated they were widowed.

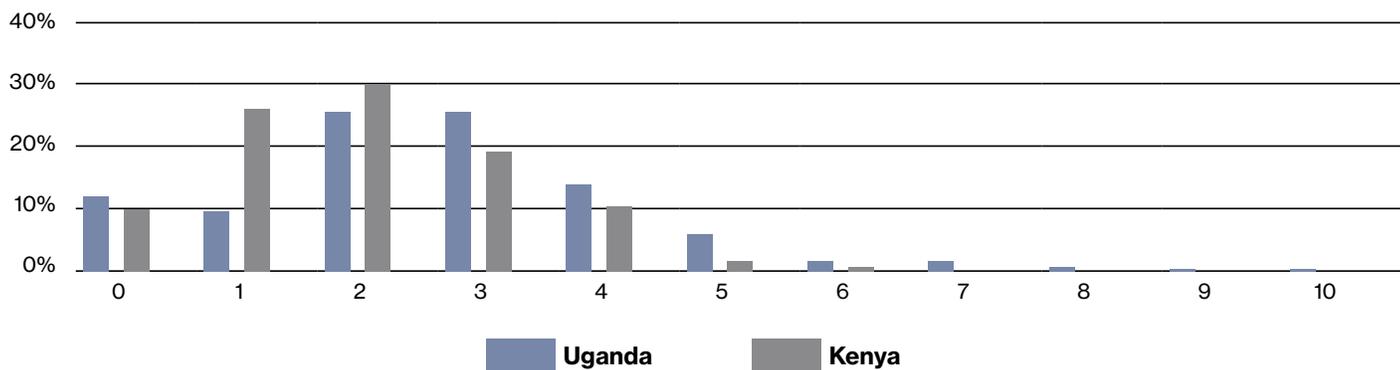


Number of children in the home

Roughly 88.5 percent of the households in our survey included children younger than 18. Ugandan households had slightly more children than their counterparts in Kenya, but in both countries the number of children in the household was concentrated between one and four.

Using a proxy of children between the ages of 6 and 18, we find that about 94 percent of households report all of their children are school age. The remainder may reflect households with children who may be older than 18 and still live at home.

Number of children in the home





Household size

Recognizing that not all households are composed of nuclear families, we asked clients how many people, including themselves, lived in their house for at least half the year. The majority of households were composed of four to six people (59.5 percent). Just under 5 percent reported 10 or more individuals lived in their house, while 5.2 percent reported that they were the sole resident. The average household size was roughly five people.

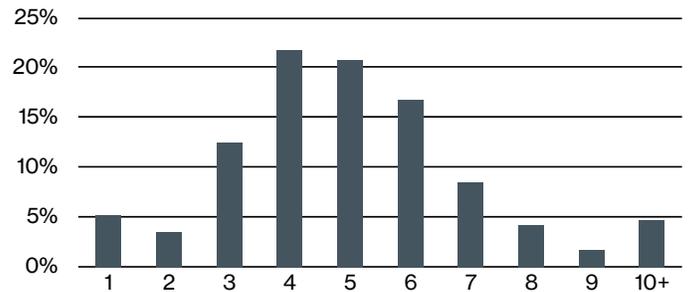
These figures varied only slightly by institution. Pride households reported the smallest household size, 4.7, and Centenary reported the largest, 5.4.

Income

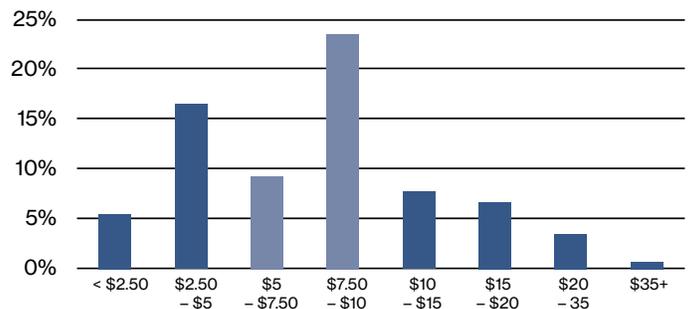
At the start of the project, the target market had been households living on less than US\$5 per day. However, after initial piloting, a revised target was set for households living on US\$5 to US\$10 per day. This was a more accurate reflection of the market segment seeking housing finance yet excluded from the formal sector.

Roughly 60 percent of clients provided their gross average monthly salary. Around 22 percent of clients have an average daily income of US\$5 or less. The rest of the clients reported average daily incomes greater than US\$5, with 32.8 percent reporting incomes of US\$5-10 per day and 14.6 percent reporting between US\$10 and \$20 per day. The remaining 4.3 percent have incomes over US\$20 per day.

Average household size



Average daily income by percentage of clients reporting





Income sources

Sixty-one percent of borrowers reported a single source of income, while the remaining 39 percent reported two or more sources of income. Based on survey responses, having multiple sources of income appears to be more common in Kenya than in Uganda, with 53.2 percent of KWFT clients reporting multiple sources of income and an average of 34.3 percent of clients from the Ugandan institutions reporting multiple sources. It should be noted that figures from Pride appear to be skewing these results; the institution reports 85.3 percent of its clients have only a single source of income.

Trade is the predominant income source for most of the housing microfinance borrowers, with roughly 66.3 percent reporting income from various types of trade in goods or services, including shop owners, mobile money providers, *boda boda* drivers, school proprietors and even rental owners. Salaried positions were the second most commonly reported source of income at 15.4 percent, reflecting participation of a market segment not historically targeted by microfinance institutions. Even among the four institutions, we see this vary quite a bit, as roughly 21-31 percent of Centenary and Pride housing microfinance clients draw income from a salary, while this segment comprised only 8.5 percent of Opportunity's housing clients and less than 3 percent of KWFT's housing clients.

Farming is somewhat more prevalent in Kenya than in Uganda, but for both regions, farming is most frequently a secondary income source. For example, only 15.7 percent of housing

microfinance clients at KWFT draw income exclusively from farming. However, nearly 88 percent of KWFT clients with multiple streams of income draw some portion of their income from farming. Part-time seasonal work is more commonly observed in Uganda than in Kenya, though these figures appear to be driven primarily by Centenary Bank. Clients with part-time seasonal work do not account for more than 5 percent of participants.

Housing situation and outcomes of housing microfinance

At the outset of the BAUA project, two of the key targeted outcomes were decent shelter and improved quality of life. Key components of decent shelter include secure tenure; the durability or permanence of the house, specifically floors, roofing and walls; the number of bedrooms; and access to a kitchen, electricity and sanitation facilities. Understanding the general conditions of the households served and noting any changes upon taking out the housing microfinance loan provide a quick glimpse into whether the project achieved the intended housing outcomes.

Land tenure status

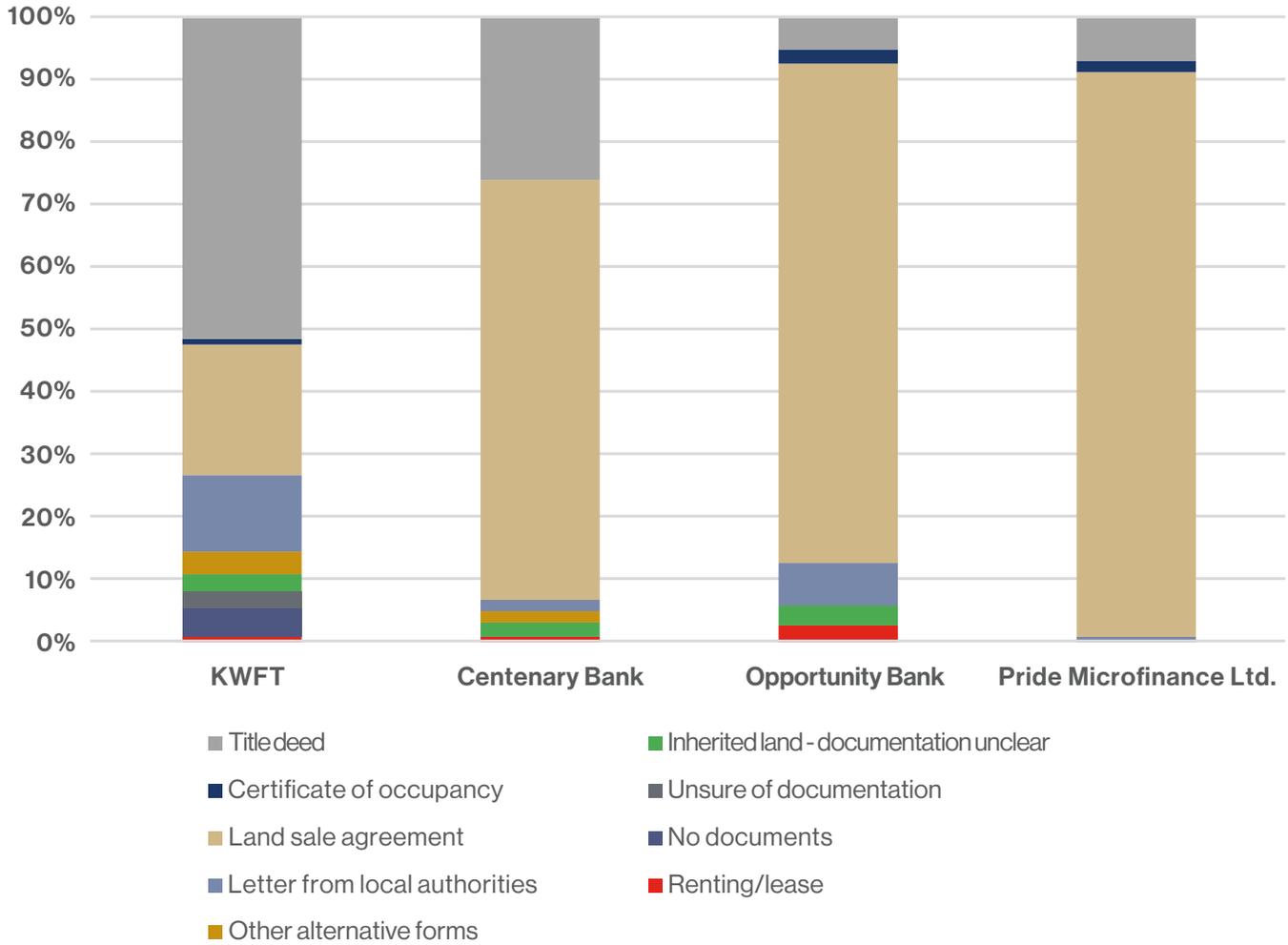
Land tenure security is of interest in regard to housing microfinance because of its implications on a household's ability to invest in property or housing improvement – and their receptivity to such investments. Regional tenure systems affect institutions' determination of what forms of tenure documentation to accept. Many accept a range of formal and informal tenure documentation, including title deeds, land sale agreements, transfer agreements, letters from local authorities, and in some cases even utility bills. These ranges provide for a more nuanced view of tenure improvement and enable households without a formal title to access housing finance.

Highlighting the relevancy of this tenure security continuum, the survey data demonstrate that in Kenya just over half of KWFT clients (51.4 percent) hold a formal title (considered the most secure form of land tenure security), while in Uganda, it is far less common for households to have a formal title. For Centenary Bank, 26 percent of clients hold a formal title, but only 5-7 percent of Pride and Opportunity clients hold a title. In Uganda, land sale agreements are the most common type of land ownership documentation held, averaging 79.7 percent. Though not a land title, land sale agreements are a formally recognized form of land ownership documentation. Other alternative forms of tenure security include certificates of occupancy (a means of formally recognizing customary tenure in Uganda),





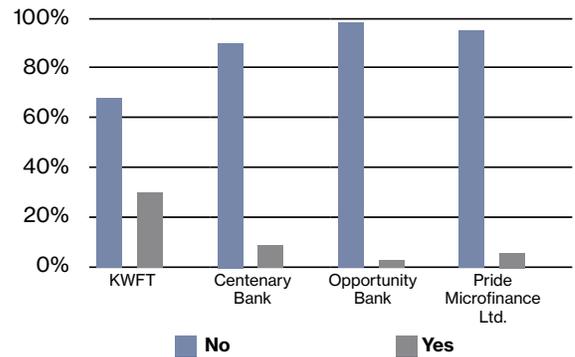
Baseline tenure documentation



letters from local authorities and land rate receipts. KWFT has the highest percentage of clients indicating no form of land ownership documentation (4.6 percent) or uncertainty as to what they have (2.8 percent), while only 1.8 percent of Uganda clients indicated that they held ancestral lands and lacked tenure documentation.

To assess improved tenure security, we narrowed the client pool to those who participated in both the baseline and follow-up surveys (reducing the number of responses to 213). Improvements in land tenure security seem fairly limited in Uganda, while in Kenya, 32.6 percent of clients affirmed that their land ownership documentation had changed since taking the loan. This may indicate that those with no documentation acquired documentation or a progression along the continuum of tenure security in Kenya.

Has your land ownership documentation changed since you accessed the loan?





Condition of housing

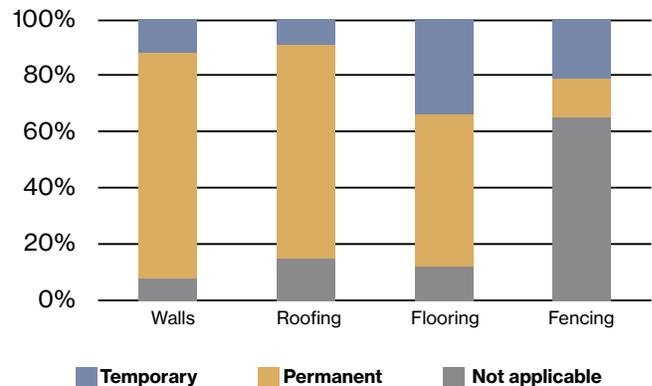
Assessment of the condition of clients' houses was based upon the use of permanent versus temporary materials for four primary components of a house: the roof, the flooring, the walls, and fencing.

- **Walls:** Across all institutions, walls were the component that the most clients reported as permanent, with 80.4 percent of clients reporting that their homes had permanent walls. The prevalence of temporary walls, however, varied widely across institutions. Temporary walls are much more prevalent among the clients of Centenary and KWFT (25 percent and 18.4 percent) than among Opportunity or Pride clients (1.7 percent and 5.2 percent, respectively). Variance is also observed between branches; over twice as many clients from Centenary's Wakiso branch have permanent walls versus clients from the Iganga branch.
- **Roofing:** Across all regions and institutions, about 75.9 percent of housing microfinance clients had permanent roofing. Temporary roofing was reported by 9.2 percent of clients, while the remaining 14.9 percent indicated that roofing was not relevant to them (this could be due to the stage of their construction or home improvement project). Based on the results, it appears that permanent walls are slightly more common than permanent roofing.
- **Floors:** Only 53.8 percent of clients had permanent flooring, while 33.8 percent had temporary flooring (though this varied from roughly 20 to 50 percent of clients based upon the institution). Permanent floors were slightly more common in Kenya – averaging 65.1 percent – than in Uganda, which averaged 50.2 percent.

- **Fencing:** Only 34.9 percent of housing microfinance clients surveyed had some type of fencing. Of these, about 60 percent were temporary. This suggests that fencing is a lower priority for many clients than roofing, walls or flooring. Additionally, we observe that permanent fencing is far more common among Uganda households at 59.5 percent than in the households of Kenyan clients (15.5 percent).

Narrowing the dataset again, we examine any changes in the reported permanence of the housing components. We find 11.7 percent reported an upgrade of their walls from temporary to permanent, 8.9 percent indicated an upgrade of their roofing, 22.5 percent upgraded their flooring, and 2.8 percent upgraded their fencing. Additionally, we observe that 5.2 percent of clients initially indicated that the question regarding walls was not applicable but in the follow-up survey reported having either temporary or permanent walls. Similarly, we find that 12.2 percent initially indicated that the permanence of their roofing was not applicable, but then indicated having a permanent roof in the follow-up survey; 11.3 percent shifted from not applicable to permanent or temporary floors; and 19.7 percent initially indicated fencing as not applicable but reported either temporary or permanent fencing in the follow-up survey.

Structural permanence at baseline



Curiously, we also note what appears to be a digression of 7 percent of houses from permanent to temporary walls, along with 6.1 percent indicating regression in roofing, 11.3 percent in floors, and 2.8 percent in fencing. One possible reason for these figures is related to a change in the shelter the client is reporting on (if the client took out the loan to build a new house or purchase land, they may have answered the baseline survey with their current residence in mind and the follow-up survey with their new structure or addition in focus). Indeed, we find



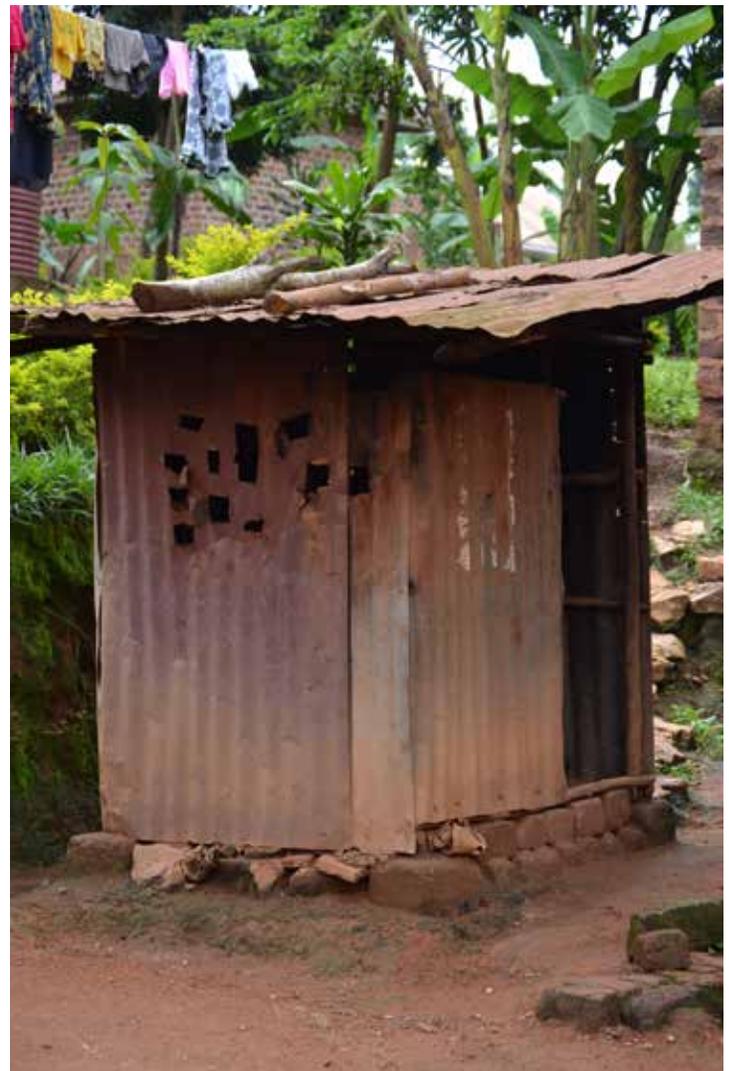
that this is likely at least one factor, as just over 25 percent of those indicating a digression in walls also indicated that their loan was purposed for either a new build, a room addition or a land purchase. Just over half of those indicating a similar transition for roofing and flooring were also using their housing microfinance loan for a new build, a room addition or a land purchase. Similarly, this was the case for roughly a third of the households indicating a digression in fencing.

House composition

In addition to the structural integrity of the house, it is helpful to understand what the houses of these borrowers comprise. Clients were asked about the number of bedrooms and living rooms, and whether they had indoor or outdoor kitchens and bathrooms.

- **Number of bedrooms:** In both Uganda and Kenya, houses tend to have many bedrooms, which makes sense given the family sizes noted earlier. Nearly half of all homes, across all institutions, had three or more bedrooms (46.6 percent). The number of bedrooms appeared to be consistently higher in Kenya than in Uganda. The figures for Uganda were driven upward by Centenary Bank clients (71 percent report three or more bedrooms), while 17-28 percent of Opportunity and Pride housing microfinance clients report having only one bedroom (two to three times the percentage of clients at Centenary and KWFT).
- **Number of living rooms:** While Ugandan houses seem to have fewer bedrooms, they were more likely to have additional living rooms. In Kenya, 90.8 percent of clients had only one living room, and only 3.7 percent had two living rooms, while in Uganda, 62.4 percent of households had only one living room and 29.2 percent had two.
- **Outdoor/indoor kitchen:** Outdoor kitchens were prevalent in both Uganda and Kenya, averaging 59 percent of households (41.3 percent had only an outdoor kitchen). Roughly 40 percent of households had indoor kitchens. Across all four institutions, 17.7 percent of households had both an indoor and an outdoor kitchen, while 18.9 percent had no kitchen (excluding new builds). There was a notable difference observed between the Uganda institutions, however, with 65.7 percent of Centenary clients having an indoor kitchen versus only 22.8 percent of Opportunity clients and 35.6 percent of Pride clients.

- **Outdoor/indoor bathroom:** Nearly 70 percent of clients across regions and institutions had an indoor bathroom (43.6 percent had both, while 15.8 percent had only indoor bathrooms). Yet outdoor bathrooms proved most common, with 83.8 percent of households reporting an outdoor bathroom (41.2 percent exclusively and 42.6 percent having both). Indoor bathrooms appear to be somewhat more common in the houses of Ugandan clients (60.3 percent versus 52.3 percent in Kenyan households), but Kenyan households were more likely to have exclusively indoor facilities than the Uganda households.





Reducing our survey review again to the comparative survey responses, we find that 27.6 percent of households reported an increase in the number of bedrooms in their house, with the majority concentrated in Uganda. Simultaneously, we observe that roughly 31 percent reported a decline in the number of bedrooms. A portion of these were new builds, but we are unable to derive a clear reason for the rest of the decline in the number of bedrooms. We also find that nearly 21 percent of households reported an increase in the number of living rooms, but 24.6 percent reported a decrease in the number of living rooms. It is possible that the changes in bedrooms and living rooms are related to a fluid concept of living rooms and bedrooms, but further conversations with clients and data analysis are necessary to better understand the dynamics underlying these shifts. Looking at indoor and outdoor kitchens, we find that 13.7 percent of households reported an improvement from no kitchen to either an outdoor kitchen (8.5 percent), an indoor kitchen (1.9 percent), or both (3.3 percent). Although the improvement to an indoor kitchen may seem low, we observe 18.4 percent of households added indoor kitchens, but the majority of these (13.7 percent) had an outdoor kitchen previously.

Regarding bathrooms, we observe an increase in access to latrines or flushing toilets by 6.8 percent of households. We also note a decline in access reported by 7.7 percent, but nearly half of these are reported by clients who took out housing microfinance loans for new builds. Like the changes in housing materials, we surmise that at least a portion of the change in access may reflect a change in the structure the client is reporting on (from current residence to new build). However, we are unable to identify from the data a clear reason for the additional change.

Nearby water source

Access to water was assessed in two ways: first by availability of a water source within 500 meters of the house and second by the type of water access point the house had: borehole, dug well or piped water. Ugandan households demonstrated higher proximity, with 87.1 percent of households within 500 meters of a water source versus 66.1 percent of households in Kenya.

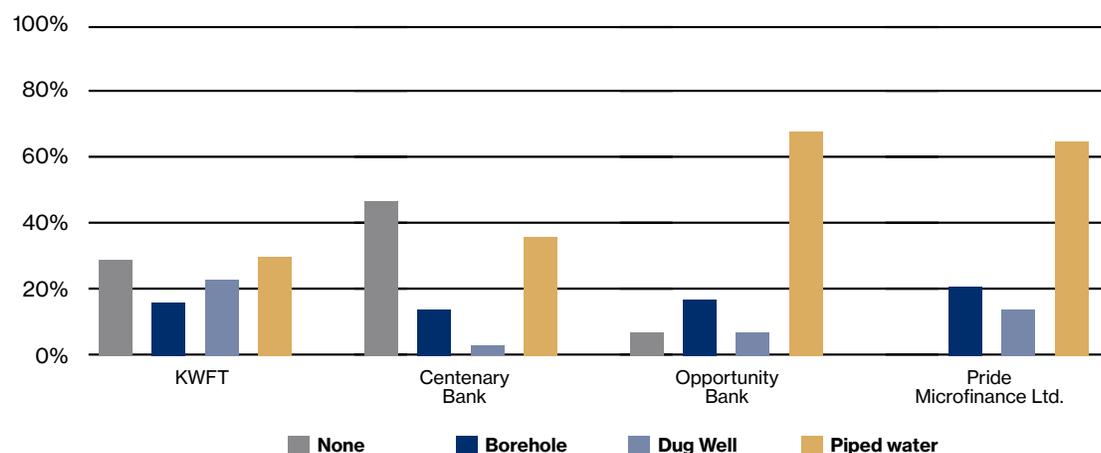
Nearly 20 percent of Kenyan housing microfinance clients indicated that they lacked both proximity to a water source and a water access point. In Uganda, this scenario faced only 4.8 percent of clients. Conversely, 30.3 percent of clients in Kenya had piped water as an access point. In Uganda, 57.6 percent of clients had piped water. The only difference observed in the analysis is that dug wells are far more common in Kenya than in Uganda.

From the follow-up survey, we observe an approximate 9 percent improvement in proximity to water, along with 27.2 percent indicating an improvement in their water source, whether from none to any of the options, from borehole to dug well, or from any other status to piped water.

Toilets

Clients also were asked what type of toilet facility they had on their property: a flush toilet, latrine or neither. Latrines were by far the most common, with 83.8 percent of clients reporting that they had a latrine and just over 10 percent of clients reporting a flush toilet. Only 5.6 percent of clients had neither, while 0.23 percent reported another form of facility but didn't disclose what this meant. Pride clients reported the least number of flush toilets, at only 3.5 percent, versus an average of 12.9 percent across the other three institutions.

Type of water access point





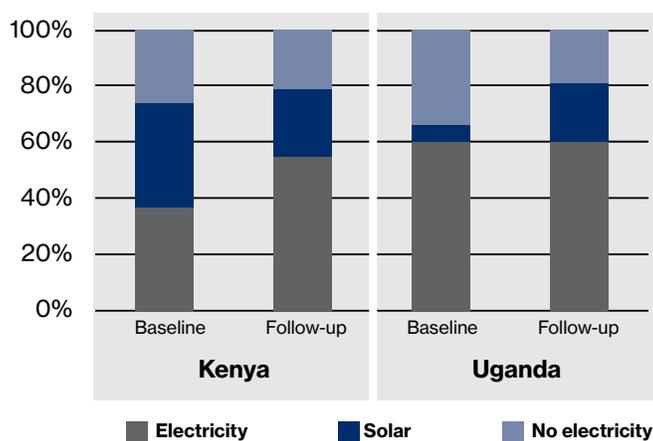
Narrowing our dataset again for comparative purposes, we do observe an improvement in sanitation facilities, with 11.7 percent of households moving from latrines to flush toilets and roughly 2 percent gaining a facility (moving from neither to a latrine). However, we also observe two puzzling shifts: 8.5 percent moving from flush toilets to latrines and 4.2 percent moving from latrines to nothing. For the latter, we know that at least a third of these were related to loans for new builds, indicating that perhaps the initial response regarding sanitation facilities related to the households' current residence versus the new construction site. However, the shift also could reflect a misunderstanding of the question, cautioning that both the improvement and apparent declines in facilities may not be as dramatic as reflected.

Across all institutions, we see an increase in flush toilets (from 9.4 percent to 12.7 percent) and a decline in latrines (from 88.3 to 82.6 percent). We also see an increase in the percentage who said they had nothing (from 2.4 to 4.7 percent), which again may be at least partially related to new builds.

Energy sources

Across the institutions, 49.3 percent of households have electrical service, and 13.7 percent have solar power. Nearly 37 percent have neither. Solar power is particularly common in Kenya, where 38.5 percent of clients reported having solar power before taking out a housing microfinance loan.

Access to power

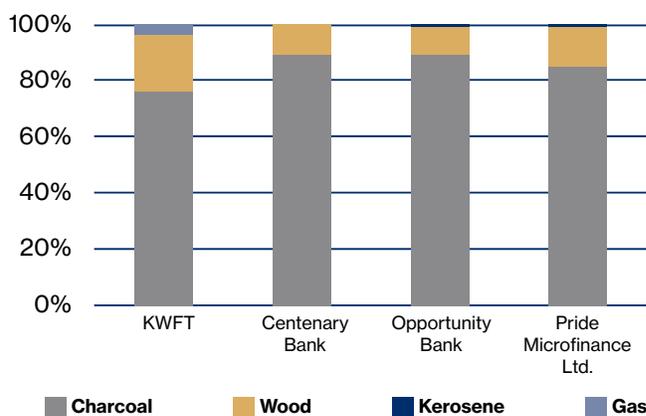


Narrowing to those who also answered the follow-up survey, we observe an increase in access to power, with 17.4 percent gaining access to electricity and a further 8 percent gaining solar power. We note that on average, the increased access to electricity was relatively similar in Kenya and Uganda (16.3 percent and 17.7 percent, respectively), while the increase

in access to power through solar in Uganda (8.8 percent) was nearly double what was reported in Kenya (4.7 percent).

About 10 percent of those surveyed indicated access to electricity initially, but no electricity in the follow-up survey. We observe that roughly a third of these respondents took out the housing microfinance loan for land purchase or a new build, so the change in electricity access may refer to two different locations. But we are again unable to identify why a loss of electrical access appears to be demonstrated for the rest.

Primary fuel used for cooking



Fuel sources

Complementing our understanding of clients' energy sources, we also collected information on what types of fuel clients used to cook: charcoal, wood, kerosene, gas or electricity. It is helpful to recognize in this analysis that many of these clients also used secondary or tertiary forms of fuel for cooking. Charcoal was by far the most common fuel source, with an average of 84.9 percent of clients using it across regions. Interestingly, households always reported charcoal first, as the primary fuel source, not a secondary source. Wood was the second most commonly reported fuel, with 42.6 percent of clients reporting using it, but only 13.7 percent as a primary fuel source. Further distinctions are evident between regions and institutions. In Uganda, charcoal is king, with 45.2-56.5 percent of clients using charcoal exclusively depending on institution and 88.1 percent cumulatively. For KWFT, if we look at cumulative use, wood actually surpasses charcoal at 78.9 percent versus 76.2 percent. In contrast, only 30.8 percent of Ugandan borrowers report wood as a fuel source for cooking (whether used exclusively or in addition to other fuel sources). We also find that gas is a more popular fuel source among Kenyan households (35.8 percent) than in Uganda (9 percent). Electricity, which was mentioned



only as a supplementary fuel source, was more common among Ugandan households (7.8 percent) than in Kenya (0.9 percent). Very little solar power use for cooking is observed in either Uganda or Kenya.

Analyzing the follow-up survey responses, we find that roughly 13 percent of households moved from charcoal and/or wood to using gas, kerosene or electricity to cook food, but only 2.3 percent appear to be a complete switch from one source to the other (versus mentioning gas, kerosene or electricity as an alternate fuel source for cooking). This is not surprising, as only 3.8 percent of loans were intended for obtaining electricity, and even those few borrowers who took out loans for this purpose did not all indicate a change in fuel source for cooking food. Correlation of a change in fuel source for cooking to a housing microfinance loan appears to be quite limited and would be better explored using deeper statistical analysis complemented by additional qualitative understanding of clients' decisions regarding fuel sources.

Purpose of the loan

With the exception of new builds, land purchases, and the construction of additional rooms, many borrowers take out a housing microfinance loan for multiple housing-related uses. Across all institutions, the leading reason for taking a home improvement loan was for a roof, representing 31.5 percent of survey participants. Roofing was followed by painting and plastering (28.9 percent), flooring (17.8 percent) and windows (16.9 percent). For 7.6 percent of clients, electricity was a primary reason for the housing microfinance loan (note that this review includes the baseline dataset, versus the comparative set explored above). Other reasons cited for taking out housing microfinance loans include installing windows, building or repairing walls and adding binding mortar, installing doors, adding a latrine or bathroom, building fencing, and purchasing materials. By institution, we continue to see roofing, flooring and painting/plastering as the primary uses of the housing microfinance loans. Demand for in-house electricity appeared to be more prominent at KWFT in Kenya, with use rates more than double those of the Uganda institutions.

Proxy indicators of change in quality of life

Key indicators collected through the baseline and follow-up surveys provide insights into the impact of the housing microfinance loans and subsequent housing improvements on the quality of borrowers' lives. These indicators serve as proxies for assessing impact on wealth, health and education. These findings should not be interpreted as establishing a causal effect of housing microfinance, as this analysis does not include a control group against which to compare. However, these findings inform our understanding of the dimensions in which access to capital for improved housing may affect a household's quality of life, specifically income generation, education and health.

Wealth

The financial implications for households borrowing for housing improvements may be displayed in various ways. Here we consider the effect of the loan on a client's income, whether the loan amount was sufficient to fully cover the anticipated costs or additional capital was needed, and what effect accessing the loan may have on a client's stress levels.

Change in income

Delving into the impact of uptake of a housing microfinance loan, we find that 65.2 percent of clients reported a decline in income, 27.8 percent reported an increase, and the remaining 7 percent reported no change. Because of the sample sizes, variances by institution were not statistically significant. Although an increase in income may correlate to a housing microfinance loan if a client invested in adding room for a work space or a rental property, we are unable to directly correlate any change in income to the uptake of a housing microfinance loan. A number of other factors could undergird this change, including seasonality in the business cycle, a change in jobs, or political or socioeconomic currents. However, the high percentage of clients reporting a decline in income merits further analysis to understand how housing microfinance loans may be contributing to this decline and what other factors are leading to this outcome. With further analysis, the financial institutions can assess whether these are indicators of increasing risk in the portfolio.



Additional sources of funding

An additional factor affecting the financial burden on a household is whether the referenced housing microfinance loan was sufficient to cover their housing improvement needs or if it was supplemented by additional funding, be it from savings, borrowing from friends or family, borrowing from another institution, or an alternative source. From the baseline survey, we found an overwhelming majority of clients (87.8 percent) did access a secondary source of financing, with 10.1 percent using two or more secondary sources of funding.

Savings was a primary source of additional funding for the majority of clients, and the primary means across all institutions. We found that 69.1 percent of clients relied on savings to supplement the housing loan, 5.9 percent sourced funds from family or friends, and 11.5 percent borrowed from either another financial institution or a local lender. Ugandan clients more frequently used savings than their Kenyan counterparts, at 62-86 percent for clients of the Uganda institutions versus only 42.2 percent at KWFT. This difference, however, is likely accounted for by KWFT also having the highest percentage of clients who did not source additional funding (24.8 percent). This is substantially higher than the rates for the Ugandan institutions, where the percentage of clients who did not require additional funding averaged 7.9 percent, with very little variance among the three institutions.

Financial stress

Clients were asked how many days out of the past 30 they had felt stressed because of financial reasons. The data revealed relatively similar levels of pre-existing financial stress among the institutions, with a cumulative average of 3.6 days per month. Centenary Bank, however, had distinctly higher averages at the two branches surveyed, leading to a cumulative institutional average of 11.2 days.

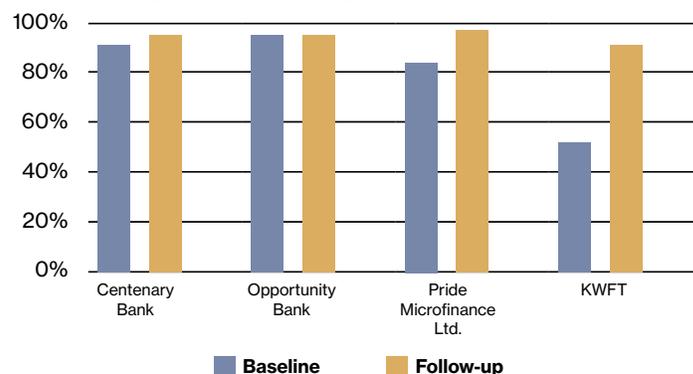
From the follow-up survey, we find that 41.8 percent of clients reported an improvement in their financial stress, while 43.7 percent reported higher stress. We observe that the improvement was concentrated on clients who at the baseline had reported a higher than average number of days in stress (7.6). This contrasts with those whose stress levels increased, who at the baseline reported a lower than average number of days in stress (2.4). Branches with the highest average number of days in which clients experienced financial duress are the branches with the highest improvement after accessing housing microfinance loans.

This seems to indicate that, in areas where financial capital for housing was restricted and costs were great, providing access to housing microfinance may relieve pressure on households. But in regions where housing microfinance loans introduce a new financial constraint, the loans are likely to lead to more days in which the clients feel stress. Further qualitative reviews would be useful to determine whether that access is the differentiator here, or whether housing microfinance loans introduced a new stress unique to a housing product versus another financial product. However, this highlights the importance of assessing clients' borrowing capacity with caution toward preventing undue financial stress.

School enrollment

Clients were also asked how many children were in the house and how many of them were enrolled in school. Cross-analyzing this with the information clients answered as to how many members of the households were younger than 18, we are able to assess the percentage of school-age children who were enrolled in school. We find that overall school enrollment was higher among the Ugandan institutions (ranging from 84.3 to 95.5 percent) versus KWFT, where just over half of school-age children (52.4 percent) were enrolled. From the follow-up survey, we find improvement across the board, with all institutions reporting 90 percent or higher enrollment. While there does appear to be correlation between school enrollment and housing improvements, further research is necessary to identify the drivers of the increased school enrollment.

School enrollment (percentage of school-age children)





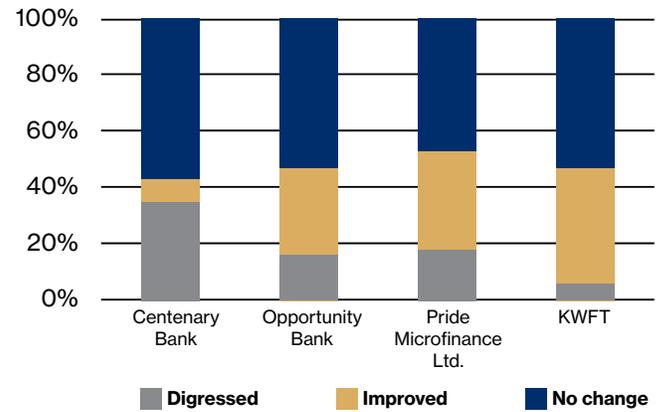
Health and school attendance

A key indicator of health challenges and their effect on a household is the number of days each month a child misses school because of illness. Roughly a quarter of clients surveyed – 117 households – reported on the health of school-age children in both the baseline and the follow-up survey. Of these, 25.3 percent reported an improvement in school attendance (measured as a decline in the number of days per month missed because of illness). Of the rest, 19.2 percent reported an increase in absences due to health, and 55.6 percent reported no change in school attendance.

At the baseline, the average number of days missed was 0.62, while in the follow-up survey the average days missed was 0.83. This seems to indicate that though a larger share of clients realized an improvement in the number of days their children missed school, those children missing school because of illness were perhaps out for a longer period.

By institution, we find that Opportunity and KWFT clients reported an overall improvement, while Pride and Centenary clients noted a decline in school attendance because of health reasons. Again, we caution that these findings do not verify that the relationship is causal, as the outcomes could be affected by a number of other factors. However, they are an important litmus test on whether housing may correlate to changes in health and children’s participation in education.

Percentage of change in school attendance



Average change in school attendance (days)			
1.00	-0.25	0.25	-0.75
Centenary Bank	Opportunity Bank	Pride Microfinance Ltd.	KWFT





Key lessons

In practice, the income range of the housing microfinance clients who have been a part of the Building Assets, Unlocking Access project was much broader than the US\$5-10 per day target. We found that though nearly 40 percent fell within the initial income targets, a sizable percentage of clients reported incomes either higher or lower than the US\$5-10 per day range. Some of this variance may be due to the unique approach of each institution and their respective target markets. However, understanding how the needs and desires of the target income group may vary from the lower and higher income ranges could provide useful insights for further refining product parameters.

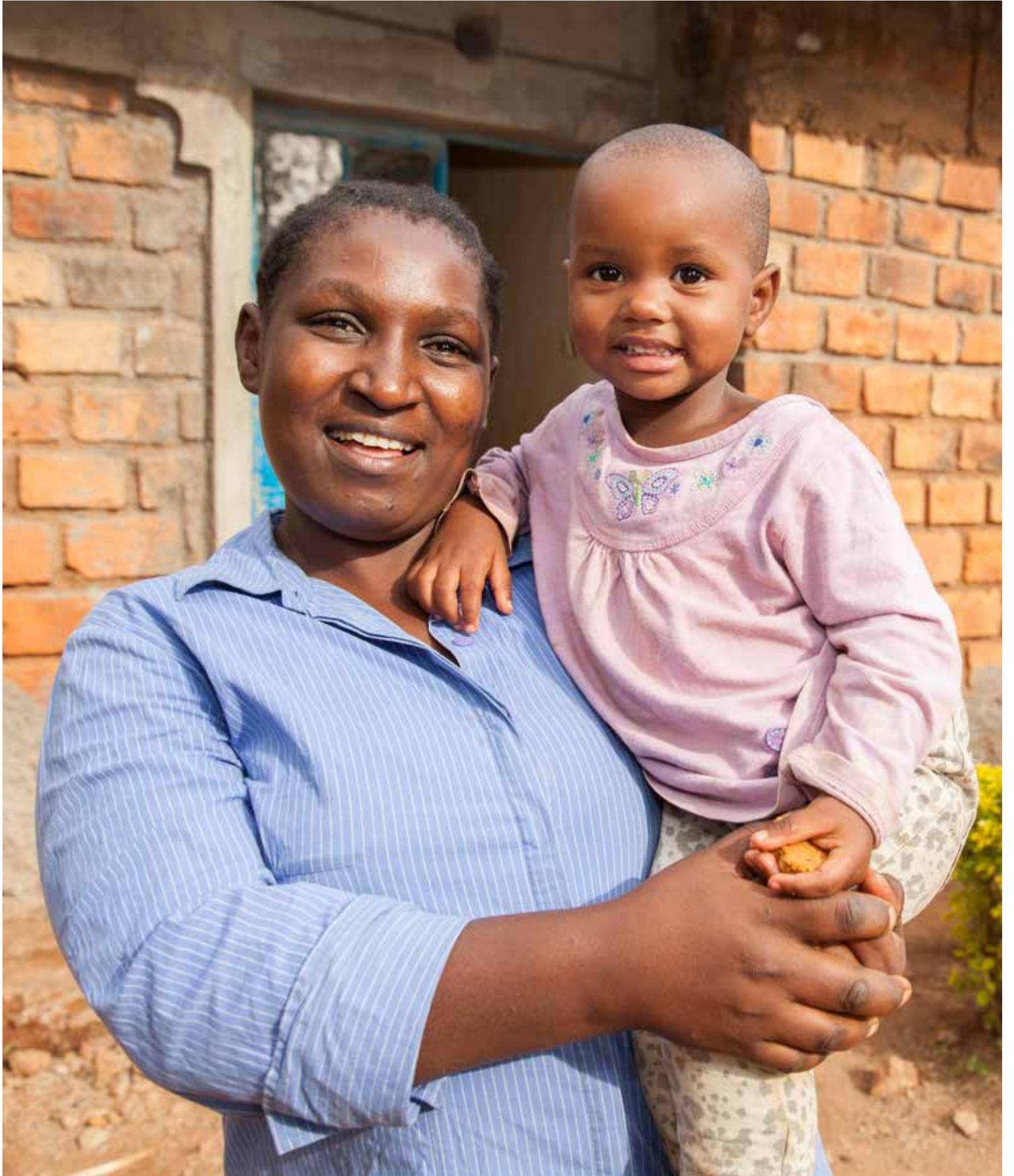
Housing microfinance clients did include those with salaries, seasonal work and other sources of non-business-related income. The survey results demonstrate that housing microfinance provides an attractive opportunity for both micro- and small-business owners, in addition to those who are not entrepreneurs but still face a market constraint in accessing housing finance.

Housing microfinance loans were often used to address multiple housing improvements, but the most common uses were roofing, painting and plastering, flooring, and windows. Through housing microfinance loans, clients added bedrooms and living rooms, added a kitchen or bathroom, or upgraded from outdoor to indoor facilities. They also accessed electricity or solar power, improved the durability of their homes, and enhanced their water access systems. The data, however, also revealed a rather puzzling shift downward in the durability of some structures and advancement of certain housing components. We suspect that a significant portion of these negative changes is the result of a change in the structure referenced in the survey responses in correlation with use of the loan for land purchases, new builds, or addition of a room. However, the prevalence of this shift across indicators could benefit from further scrutiny to better understand whether this is the result of a survey administration issue or is at all correlated to the uptake of a housing microfinance loan.

In terms of a household's financial well-being, housing microfinance can have varied impact depending on the client's source of funding and level of financial constraints. For some, housing microfinance appears to be a source of relief, while for those with low initial levels of stress due to finances, uptake of a housing microfinance loan appears to introduce a new stressor. Many households report drawing additional funds from a secondary source, primarily savings, but some procured funds from

other financial providers. Though cross-borrowing is a risk that many financial service providers are well aware of, these results reinforce the necessity of monitoring it closely. Additionally, although some households did report an increase in income in conjunction with their housing microfinance loan, a surprising percentage of clients reported a decline in income. Further analysis may be warranted to understand whether and how income flows relate to cross-borrowing, clients' financial stress, and housing microfinance loans.

Finally, housing microfinance loan uptake does appear to correlate to an improvement in the levels of school enrollment, though implications on attendance appear mixed. In Uganda, rates of school enrollment appeared relatively high in the baseline, but both Kenyan and Ugandan clients demonstrated an improvement in enrollment. Changes in absence due to sickness, however, seem to vary widely by institution, with improvements noted for clients from two of the institutions and worsening among clients of the other two. This assessment did not attempt to derive a statistical correlation between these factors, but further analysis of the correlation of housing microfinance loan uptake with both school enrollment and school attendance may provide further insights on how to target the loan product for more effective impact.





The Building Assets, Unlocking Access project was implemented by Habitat for Humanity International's Terwilliger Center for Innovation in Shelter in partnership with the Mastercard Foundation to develop housing microfinance products and nonfinancial support services for people living on US\$5 to \$10 per day. The project aimed to enable these people to secure adequate and affordable housing and improve their living conditions.

To learn more about the partnership between Habitat for Humanity's Terwilliger Center and the Mastercard Foundation, and about the lessons emerging from the Building Assets, Unlocking Access project, visit

[habitat.org/impact/our-work/terwilliger-center-innovation-in-shelter/shelter-solutions-for-people-in-sub-saharan-africa](https://www.habitat.org/impact/our-work/terwilliger-center-innovation-in-shelter/shelter-solutions-for-people-in-sub-saharan-africa)



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