



THE IMPACT OF REALL'S AFFORDABLE HOUSING INVESTMENTS ON QUALITY OF LIFE IN URBAN KENYA

JANUARY 2021

ABOUT REALL'S IMPACT STUDY

Reall is an innovator and investor in affordable housing. Our goal is to build an affordable housing movement that will improve the life chances of 100 million people in urban Africa and Asia by 2030. As a market leader with over 30 years' experience in the international affordable housing sector, Reall knows that quality housing has cross-cutting positive benefits on the lives of families and communities living on low incomes (contributing to 16 of 17 SDGs). To better evidence this impact and identify key lessons to improve effectiveness, Reall recently undertook an ambitious impact evaluation of urban housing projects in four of our priority countries – India, Kenya, Nepal, and Pakistan.

Through 1,259 household surveys, along with extensive focus groups, interviews, and site visits, Reall has generated substantive evidence about its housing investments, partners, and clients. Much of this information captures the profound positive impact of commercially viable housing on the health, wellbeing, and opportunities of people in the bottom 40% of the income pyramid. Through this evidence, Reall contributes new knowledge and catalyses stakeholders to unlock affordable housing solutions at scale in emerging economies.

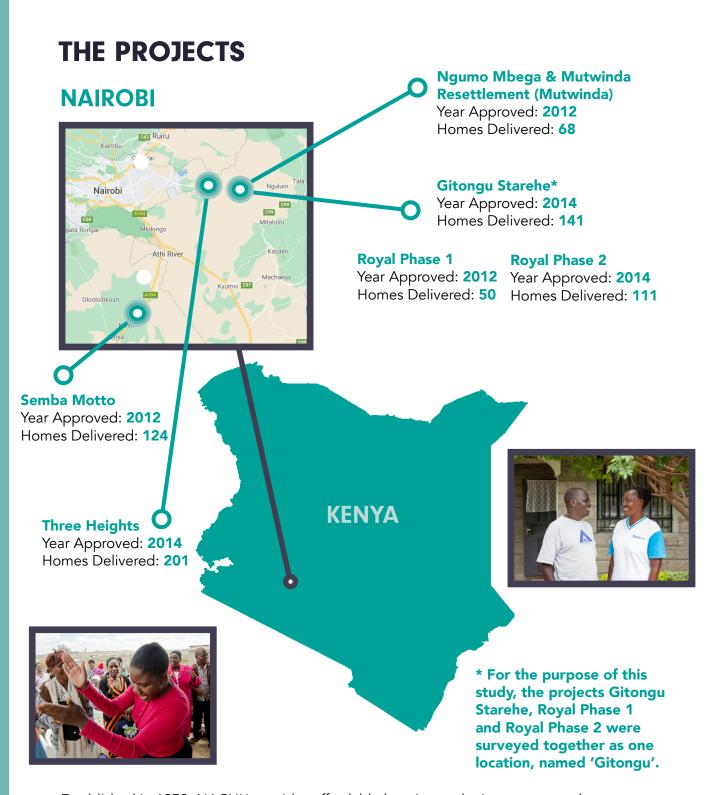
KENYA IMPACT STUDY

Reall has been pursuing commercial strategies in Kenya since 2005, partnering with NACHU to drive forwards innovative and commercially viable housing models. Together, Reall and NACHU have unlocked the capital investment and political will needed to supply over 1,800 affordable homes across Kenya. Reall's impact study research documented the social and economic impacts of this housing on NACHU customers, surveying 174 households within seven projects based in and around Nairobi. A baseline was established through homeowners evaluating their previous socio-economic and housing circumstances and how these have changed since moving into their new homes.

KEY FINDINGS

- Reall and NACHU have demonstrated commercially viable affordable housing models, with over 1,800 families living on low incomes purchasing homes across Kenya
- 96% of households targeted were in the bottom 40% of the income pyramid when they received their homes
- Investments have catalysed wide-ranging positive impacts on residents, with Reall's average Quality of Life Index (QoLI) scores increasing from the baseline of 6.0, to 8.0 out of 10
- Improved access to in-home clean water, with the percentage of homes with private sanitation rising from 47% to 100%, boosting health and pandemic resilience
- However, clients relocating significant distances have generally experienced reductions in real incomes; a factor that requires effective mitigation through assistance in adjusting livelihoods and jobs

¹ National Cooperative Housing Union (NACHU) – an umbrella organisation for Kenyan co-operatives, which works to improve housing conditions for low income communities.



Established in 1979, NACHU provides affordable housing and micro-mortgage loans to members of individual housing cooperatives. The majority of clients previously resided in informal slum settlements within Nairobi and Athi River, with a smaller number previously being tenants in more formal rental housing.

NACHU's housing estates are generally peri-urban, built in areas that are likely to see significant development in the coming years. The estates consist of stand-alone starter homes that allow for incremental construction, and are fully connected to water, sanitation and electricity.

More information on these and other projects can be found on Reall's interactive data dashboard: www.reall.net/dashboard

COMMERCIAL VIABILITY

Reall has been developing commercial strategies with NACHU since 2010 to address the severe housing deficit in Kenya of at least 2 million houses. Through the disbursement of loans to partnered developers, Reall has provided bridge capital to finance construction. Once homes are completed and sold to occupants, partners repay their loans and capital is revolved to enable increased efficiencies and economies of scale. To date, Reall has invested \$15 million in Kenya, of which \$3 million is recycled funds.

A CASE STUDY: MICRO-MORTGAGE LOANS

All surveyed households qualified for housing finance to purchase their new homes through a micro-mortgage saving scheme with NACHU. To obtain a home loan, households committed to saving each month to accumulate a 20% deposit. A repayment period was then set up to a maximum of 10 years. In this way NACHU has enabled access to quality housing assets for almost 2000 households throughout Kenya, who would otherwise struggle to access finance through formal institutions.

The project Gitongu Starehe, saw the majority of residents move into their new affordable homes between 2015 and 2018. Five year loan repayment plans were set up at the start of occupancy and from the USD \$589,000 invested, USD \$451,000 (76% of total investment) has now been repaid by clients. This proves the capacity and manageable risk of customers on low incomes to access and repay housing finance, while gaining an owned asset in the process.

GITONGU STAREHE

GITONGU TOTAL PROJECT INVESTMENT BY REALL:

FUNDS REPAID BY HOUSEHOLDS TO PARTNER: (TO DATE)

\$589K

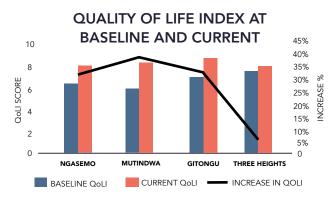
QUALITY OF LIFE INDEX

To assess the socio-economic impact of Reall's housing investments, Reall has developed a Quality of Life Index (QoLI) to quantify the overall wellbeing of residents. Using a scoring system from 0-10, it includes data regarding:

- Subjective wellbeing
- Incomes
- Overcrowding
- Affordability

Reall's research found that QoLI scores improved significantly across all surveyed projects. Mutindwa reported the greatest increase (40%), which in part reflects how many of its households previously lived in the Mitumba slum, which has some of the worst living conditions in Nairobi. Semba Motto and Gitongu homeowners also experienced significant increases of 31% and 32%.

- Access to water and sanitation
- Distance to workplaces, schools and services

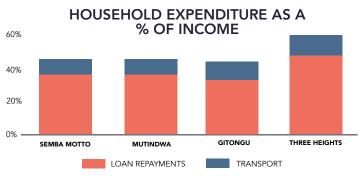


In contrast, the QoLI scores increased by 7% in Three Heights. This reflects higher baseline scores from respondents, who generally had higher incomes and lived in formal rental housing previously, and lower current scores likely due to higher expectations of their new homes. Nevertheless Reall's Quality of Life Index captures the improvements experienced by new homeowners, particularly for those who previously resided in informal settlements.

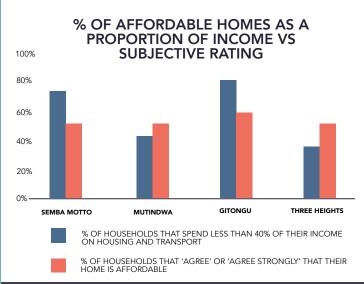
AFFORDABILITY

Reall invests in homes for those in the bottom 40% of the income pyramid. Data gathered showed significant success in hitting this target market with 96% of all households identified as being in the bottom 40% of income earners.

Reall investigated the proportion of housing expenditure as a percentage of monthly income. Known as the H+T method, this includes both monthly loan repayments and transport costs. Overall, 66% of surveyed households spend 40% or less of their total income on housing expenditure after moving into their



homes, which are therefore considered affordable. Semba Motto and Gitongu showed the greatest affordability, with around three-quarters of surveyed homeowners spending less than 40% of their income on housing and transport.



To assess subjective affordability, households were also asked to rate the affordability of their new homes. This time Mutindwa and Three Heights demonstrated higher affordability than that suggested by the H+T method, which was thought to be a result of the benefits of home ownership, in terms of secure tenure and asset building, eclipsing the potential financial challenges. In contrast, residents at Semba Motto and Gitongu had a lower view of the affordability of their homes than the income data indicates, suggesting that the measurement of housing expenditure is not always an accurate predictor of affordability.

3.7

MEAN
HOUSEHOLD
SIZE

OF HOMES INCLUDE SOMEONE WITH A

DISABILITY

76%IN BOTTOM 40 %

CASE STUDY: THREE HEIGHTS

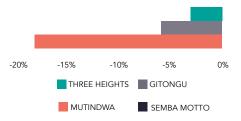
Reall's research indicates that residents at Three Heights are higher income than those living on the other projects, with most respondents having previously rented in formal housing. Despite this, these households are expending the greatest proportion of their incomes on housing, spending 56% more on loan repayments than on rent in their previous homes. This increased expenditure is indicative of both the slightly larger and better finished homes offered at Three Heights, and the escalating land and housing costs witnessed in Kenya in recent years. As Three Heights is the newest NACHU project of those surveyed (households relocating 2018-19), its higher cost reflects the current difficulties that NACHU is confronting. It is increasingly difficult to identify and acquire development land in close proximity to urban centres, that is inexpensive enough to build affordable homes for the urban poor. Since land prices will continue to increase in the foreseeable future, it was recommended that Kenyan partners investigate new options to reduce the cost of their houses. This may include:

- 1. Condominium titles, enabling two homes to be constructed on the same plot.
- 2. Design and construction of homes that allow vertical incremental building.
- 3. Densification through medium-rise apartment blocks.

INCOME

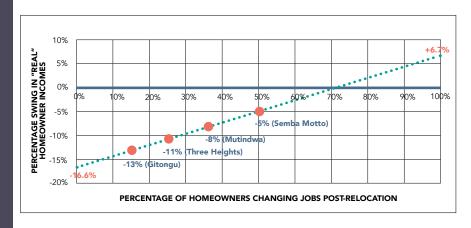
Reall's research shows that, after adjustment for inflation, average household incomes have decreased across all projects except Semba Motto, which remained the same. The evidence suggests that relocation has had a negative influence on incomes, particularly for those who work in the informal sector.

% SWING IN REAL HOUSEHOLD INCOMES BY LOCATION



Examining homeowner incomes, Reall's data demonstrates that homeowners who changed jobs post-relocation are better off financially than those that kept the same job and continue to commute back to former locations. When the proportion of homeowners who have changed jobs is plotted against the percentage swing in real incomes, a clear trend emerges.

In Semba Motto, where 49% of homeowners switched jobs, homeowner real incomes fell only 5%. This is in contrast with Gitongu where only 8% of homeowners changed jobs, and homeowner real incomes dropped by 13%. Commuting longer distances also has a significant impact on expenditure. In Gitongu, average real expenditure on transport increased by almost a third since relocating, yet in Semba Motto transport costs have remained constant.



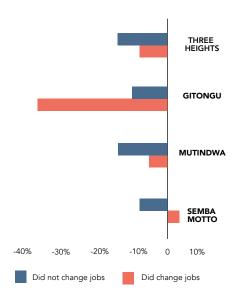
As the graph shows, there is a strong correlation between the proportion of clients changing jobs and changes in household income, which indicates that if all homeowners switched jobs post-relocation, real mean incomes could increase above inflation by as much as 7%. This illustrates the importance of adapting to new environments by exploiting business opportunities closer to home.

RECOMMENDATIONS

Reall's research demonstrates that in cases where developments are in peri-urban areas, and likely significantly distanced from where clients previously lived and worked, housing provision should be supported with investment into livelihood development. As a result, affordable housing developers are recommended to:

- Support residents in moving their employment to peri-urban areas; many of Reall's projects sit close to growing towns and key commuter routes to Athi River and Nairobi, which present considerable occupational opportunities
- Provide training and assistance for the development of new small businesses. With investment, residents would be able to apply new innovations, including drip irrigation and solar distillation, to the land surrounding the housing estates; reducing expenditure on food and boosting household incomes

% CHANGE IN HOMEOWNERS INCOMES IN "REAL" TERMS



WELLBEING

There is a strong association between housing conditions and wellbeing. Safe, quality housing that is affordable for the urban poor can help people feel more secure and peaceful, which in turn leads to healthy social interactions, a better daily routine and improved mental health. In addition, housing can foster an increased sense of stability and empowerment through the provision of tenure security. Reall's research supports this, demonstrating increases in recorded wellbeing across all survey questions. Residents were asked to rate statements that covered mental wellbeing and life satisfaction, both before they received affordable housing and at present, on a 0-10 scale. In particular, satisfaction with safety, life achievements and feeling part of the community all increased by 60%.

Respondents in Mutindwa showed the greatest improvements in wellbeing, with median swings of +5 for both feeling a part of the community and for satisfaction with the quality of the local environment. These stand as the highest increases in wellbeing recorded across all four countries that comprised Reall's impact survey. Households in Mutindwa experienced the most dramatic improvements in their living conditions, with many previously residing in dangerous and illegal settlements with little or no access to sanitation. This demonstrates the huge significance owning a home can have in transforming the lives of those at the bottom of the income pyramid.

"I can say that for my wife, for my children, for myself, we are happy."

 Goffrey, Resident of Semba Motto

MEDIAN WELLBEING SCORES



BUILDING COMMUNITY COHESION FOR INCREASED WELLBEING

Community cohesion consistently showed some of the highest reported increases in satisfaction across all projects. NACHU's housing estates are designed to promote community interaction and relationship building, with elected Residents Associations and monthly meetings identified as key factors in unifying communities. Focus group discussions frequently referenced living in a tight knit community, where they could easily discuss issues and concerns with neighbours.

ENCOURAGING INCREASED OCCUPANCY

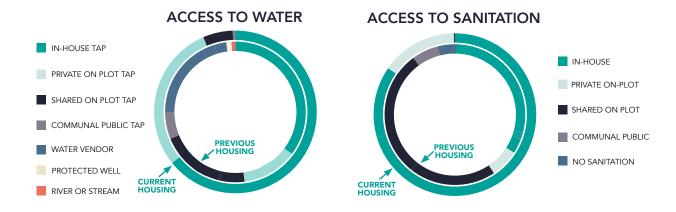
Around 70 homes at Gitongu and 28 at Three Heights were found to have low or irregular occupancy. Focus groups reported that homes were not large enough to accommodate some families used to more spacious homes on formal housing estates, causing them to wait to extend their houses before moving in. Low occupancies can present dangers to the wellbeing of residents by fracturing the community and discouraging the development the local area. As a result, it has been recommended that afordable housing developers should design mixed estates that better satisfy the full range of financial abilities and increase occupancy in the process. These estates would include incremental starter homes, suitable for those on lower incomes, as well as larger and higher quality finished houses like those at Three Heights, more suitable for slightly higher-income clients from formal rental housing.

² An example of this can be seen on the project Faisalabad 1 (see the Pakistan Impact Summary Brief).

HEALTH

Housing conditions and the built environment have a profound impact on human health. Overcrowded, low quality housing can drastically increase both exposure to infectious disease and chance of injury. The delivery of quality, affordable housing at scale is therefore an important vehicle to promote positive health outcomes in challenging urban environments, especially when equipped with access to clean water and sanitation.

Before moving into their new homes, just 41% of households had private access to water, and 47% had access to private sanitation facilities. 4% of respondents had no sanitation at all, and several participants of focus group discussions highlighted that water used to be an expensive commodity and, at times, very scarce. Since moving into the affordable housing estates, the proportion of residents with private access to water and sanitation has risen to 93% and 100% respectively.³



The availability of water and sanitation and a cleaner environment has translated into a widespread improvement in self-reported health. Surveyed households demonstrated increases of up to 80% in subjective health based on survey responses. This indicates a substantial improvement in the health of residents as a direct impact of moving into improved, affordable housing.

SATISFACTION SATISFACTION WITH WITH HEALTH WITH QUALITY OF QUALITY OF THE LOCAL SLEEP ENVIRONMENT

PREVIOUS HOUSING

MEDIAN HEALTH SCORES

"We would have to take our children to hospital every month because of diarrhoea, coughs or asthma. Now, it's more like once a year."

Focus GroupParticipant, Gitongu

All four locations are peri-urban, which has provided a healthier, pollution-free environment, with improved access to basic services for homeowners and their families. Focus groups highlighted that children have benefited significantly from the new environment, with reduced illnesses and safer areas to play outside.

CURRENT HOUSING

³ It should be noted that the remaining 7% without private access to water were experiencing temporary supply issues at the time of the survey, which have now been resolved.

SAFETY AND SECURITY

There is a strong link between inadequate housing and an individual's vulnerability to crime and theft. This is exacerbated for women and young people, who are more likely to experience gender based violence and be susceptible to illegal activity in overcrowded residences lacking basic services. The safety and security of NACHU's housing estates was a central theme of focus group discussions, with homeowners frequently referencing the key features below, which had positively impacted their own wellbeing, and that of their families.



IN HOUSE WATER AND SANITATION

Access to water and sanitation can be key to improving the safety of women and girls.

Women described how they no longer had to leave the house at night to use sanitation facilities, or to avoid the hours-long daytime queues for water collection. As well as improving their safety, women also reported having more time to focus on their families and business as a result.

"My home is small but it's mine. And nobody can remove me!"

-Focus Group Participant, Ngumo Mbega

REDUCED CRIME

Unemployment, drug abuse and crime are endemic among the youth living in slums. Gangs and turf wars are common, and many young adults lose their lives as a result of conflict between rival gangs. In one focus group, a woman recounted how her son was murdered in a mugging that took place in Kibera. Homeowners frequently described how they were previously always worrying about their children due to the culture of gangs, drugs and crime. It was unanimously agreed that the new environments had removed these negative influences.

"I feel now that my children have a foundation, they won't go to the slums, they will come here and will have somewhere to start.".

- Fabian, Resident of Mutindwa



IMPROVED SAFETY FOR CHILDREN

Slums present considerable dangers to children, with open sewers, garbage dumps and uncovered manholes. As a result, most young children are confined to their small homes for much of the day, which limits interaction with other children and can slow development.

On NACHU's projects the environment is clean and very safe for young children, with little or no passing traffic. Residents reported feeling more at peace, knowing that they no longer need to worry about their children playing outside.



Goffrey, a pastor from Semba Motto, previously lived in a slum in Athi River with his family. There his son had struggled in school, but after moving they had more space to study and play safely. His family's improved wellbeing meant that the children worked harder in school and today, Goffrey's son has successfully graduated from college with credits in ICT, while his daughter is now studying at university.

