



Terwilliger Center for  
Innovation in Shelter



# **Beyond Building: How Social Norms Shape Low-Income Home Construction in Kenya**

**Consumer insights and  
systems mapping**

May 2019

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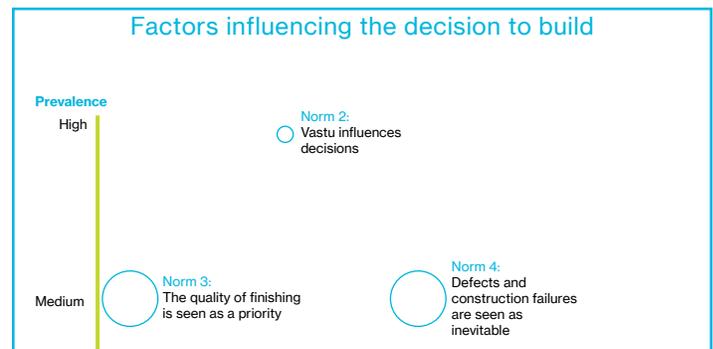


# Executive summary

In 2018, Habitat for Humanity’s Terwilliger Center for Innovation in Shelter commissioned a study from MarketShare Associates, or MSA, to understand the decision-making process of low-income households and construction laborers – also known as *fundis* in Kenya – regarding housing design and construction, and how social norms constrain low-income households from making more optimal housing decisions. This study was conducted in Kenya, Peru and India. The research in Kenya focused on understanding:

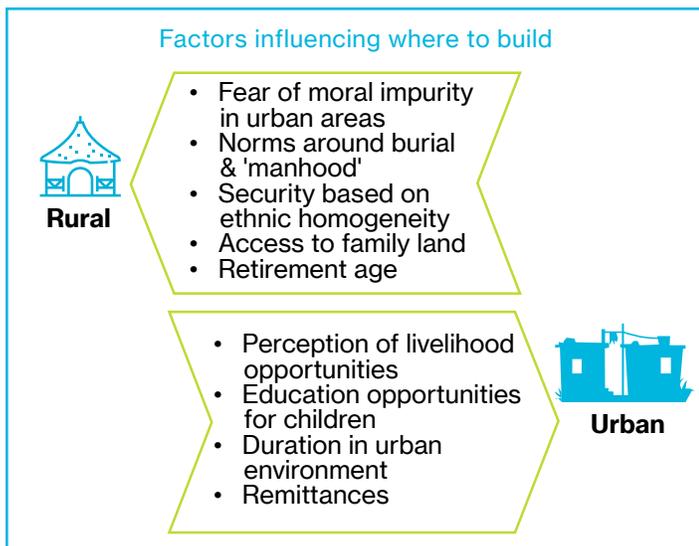
1. Pathways for low-income households to homeownership and women’s roles in decision-making.
2. How to increase *fundis*’ practices to provide higher-quality, faster and less costly construction for low-income homebuilders.

Employing a social norms, decision-making and network mapping methodology, MSA and the Terwilliger Center conducted more than 70 interviews with men and women in low-income households; *fundis*, foremen and larger-scale construction contractors; and various key influencers such as hardware retailers, village elders and technical training institutes.



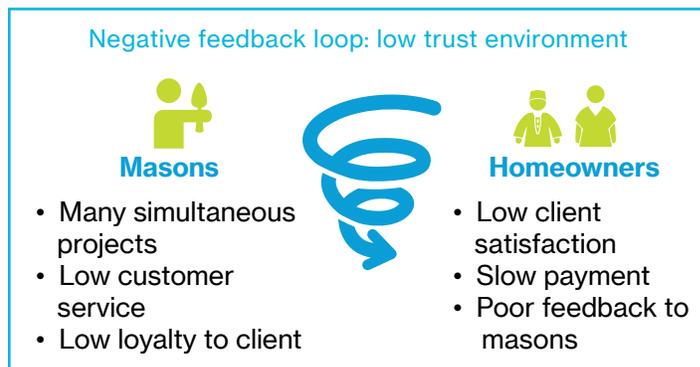
## Key findings

- Men and women agreed on what makes a “**good home**”:
  - » Permanent structure (iron sheet roof, plastered brick or stone walls, electricity, piped water).
  - » Several rooms.
  - » A self-contained bathroom (indoors).
  - » Income earning potential.
- Perception of **livelihood opportunities** strongly influences where people wished to relocate.
- **There was no standard level of savings** at which households start building.



- **Savings groups** have a strong influence on households' decisions. These groups incentivize members to save and provide loans.
- Housing decisions are often **resilience strategies**. For example, they may be made to minimize the risk of eviction or to escape ethnic violence.
- Materials and design choices depend on **price, neighborhood "style" and security of tenure**.
- Within households, most housing decisions were seen as **joint**, but men had the final word.
- Men are expected to build their own homes, especially after marriage, but **women often instigate homebuilding**.
- The more financial capital women contributed to the building project, the more involved they were in **decision-making**.

- Wealthier households could access more **diverse sources of information** related to housing than could low-income households.
- There is **strong distrust** between *fundis* and clients, which results in lower-quality construction.
- Clients view errors in construction as inevitable and rarely complain. This **lack of feedback** means that *fundis* often are not aware that they could improve their work.



- Contractors had some **certification** from a technical institute or university but felt that most training programs were **not practical**. For *fundis* to progress in the industry, "official" certification is critical. But once *fundis* got some formal training, they move on to serve wealthier households.
- *Fundis* were selected based on referrals and aesthetics of their work, rather than quality or durability.

# Glossary

## **Change objective**

These are the goals that the program hopes to achieve or the behaviors it hopes to understand through the study. Change objectives provide a scope and context within which to study people's decision-making processes and understand which social norms, influences and information flows impact them.

## **Fundi**

This is the term for “mason” in Kenya, but it also is used to refer to related tradesmen such as carpenters, electricians, plumbers, painters, repairmen and furniture-makers. Generally, a *fundi* in Kenya will have some knowledge of each of these areas but will specialize in one or two.

## **Influencer**

The actors or sources of information that inform households' decision-making. This may include sources of information or communication channels (e.g., the radio, billboards, Facebook), broad types of actors (e.g., village chiefs, brothers-in-law), or specific individuals or companies (e.g., Dura Coat).

## **Information flow**

This refers to the content, quality and frequency of information exchange between market actors. Generally, powerful market actors tend to have diverse and frequent information exchanges with a variety of other actors.

## **Market actor**

People, organizations and groups playing key roles in a particular market system. These usually include core value chain actors such as homebuilders and homebuyers; masons; construction companies; service providers and supporting function actors such as transporters, financial institutions and mason aggregators; and those who create the norms and policies that influence the environment in which the market system operates.

## **Permanent house**

Permanent structures are constructed from brick or stone walls and have iron sheet roofs.

**Semipermanent house**

In the context of Kenya, this refers to small structures with walls constructed from mud or iron sheets, and roofs made of thatched hay or iron sheets. Although called “semipermanent,” these may be inhabited for long periods.

**Social norm**

The informal rules that govern collective behaviors and expectations of behavior. These define what is considered “normal” and appropriate behavior for a group.

# 3

## Introduction

This document summarizes key findings from the first and second phases of research in Kenya under the Low-Income Housing Consumer Insight and Systems Mapping study commissioned by Habitat for Humanity's Terwilliger Center for Innovation in Shelter and carried out by MarketShare Associates, or MSA. The research objectives for the overall study are threefold:

1. Improve understanding of how key market actors – namely women and men within households and masons – make decisions on housing, what actors play an influencing role, how those actors influence the decisions, and what social norms influence these decisions.
2. Strengthen the Terwilliger Center's programming through improved engagement with private-sector players, interventions and activities that more directly account for and target relevant norms, and recommendations for new intervention priority areas or subsectors.
3. Work with the Terwilliger Center's staff to understand how norms and networks influence decision-making and broader systems, and strengthen capacity to carry out similar research in the future.

Within these broader goals, the research in Kenya focused on two change objectives:

1. Understanding both the pathways for low-income households toward homeownership and the role of women in decision-making.
2. Increase masons' practices that result in higher-quality, faster and less costly construction for low-income homebuilders.

# Theoretical framework

This study's research design was guided by two interrelated conceptual frameworks:

1. Information flows and influences on household members' decision-making.
2. Social norms theory.

Both frameworks help in understanding peoples' behaviors and decisions, and how these can be leveraged to provide better outcomes for a program's target groups.

## 4.1. Information flows and influences on decision-making

One way to understand people's decision-making is by looking at the flows of information they receive about particular topics (e.g., the "best" materials for housing construction, how to select a mason, characteristics of a good home) and the influencers who provide this information. Influencers can be particular individuals (e.g., a specific neighbor) or broad categories of actors (e.g., politicians, village chiefs, construction companies). In some cases, they can even be communication channels such as the Internet, Facebook or TV commercials. This research attempts to identify all three and determine the strength of influence that each exerts on other market actors. This focus is intended to

help inform Terwilliger Center programming by identifying which flows of information need to change for better market outcomes, how they need to change, and which key influencers programs need to work with to shift these flows.

## 4.2. Social norms

People base their decisions not solely on information, but also on what they believe is expected of them. Norms are defined as the informal rules that govern collective behaviors and expectations. In other words, social norms define what is considered "normal" and appropriate behavior for that group. Influencing social norms can thus be a powerful strategy for catalyzing systemic or large-scale change. A change in norms can lead to changes in common behavior and practices.

Common norms that vary across societies include:

- Gender segregation of sectors and tasks, and perceived appropriate types of work between women and men (traditional versus nontraditional sectors, tasks, etc.).
- Gendered division of decision-making spheres and capabilities (in the household, workplace, community, public sphere).

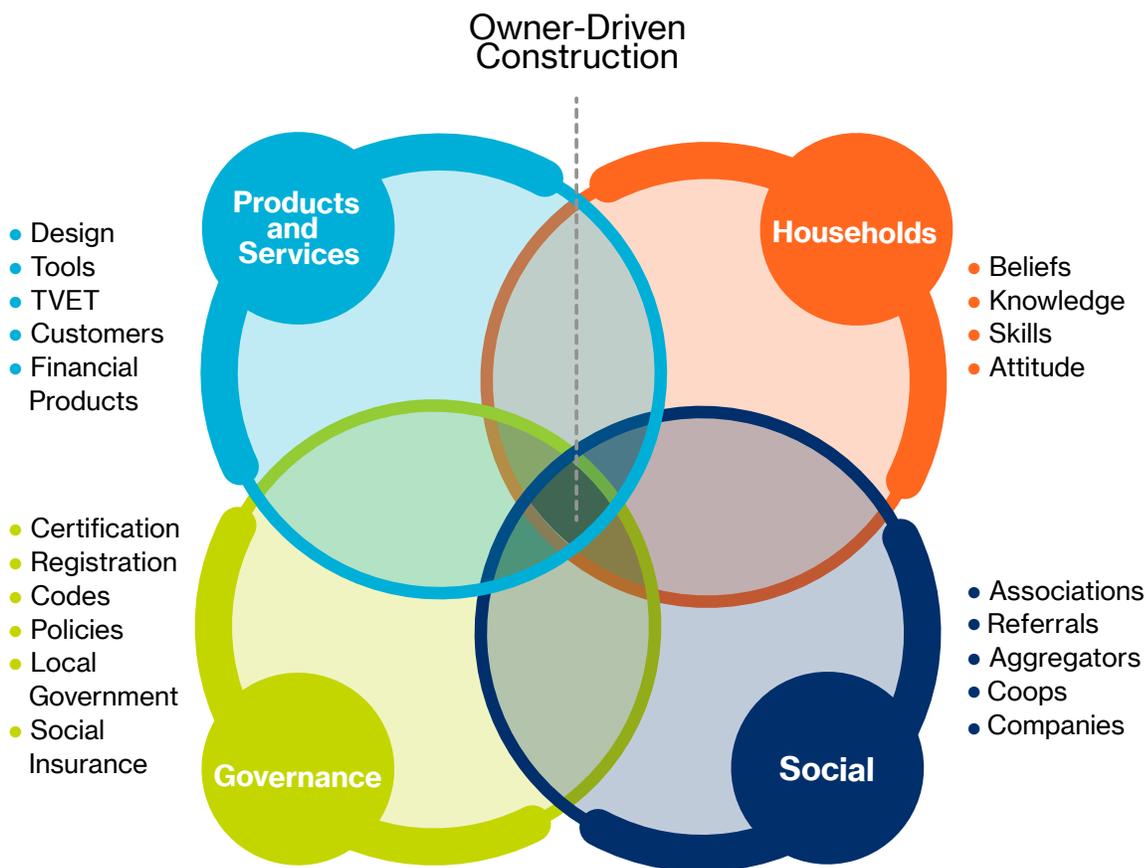
- Use (or lack thereof) of birth control.
- Ways of saving and storing money (e.g., in a bank account, in cash, as livestock, as home equity).
- Restrictions on mobility, often linked to issues around women's "security," and social norms around men's responsibility/burden to keep families (and women) safe.
- Typical age at marriage, parents' ages at first childbirth, number of children.

It is important to note that behaviors and decisions are not driven only by norms. Rather, they are influenced by a multitude of factors, as the "flower" framework developed by Cislighi and Heise (2017), which the Terwilliger Center has adapted below for housing. The four domains depicted in the figure intersect to influence people's choices and actions. The household domain includes factors specific to the person: biological conditions, knowledge and psychological characteristics. The social domain includes factors such as whether there are positive deviants within the group, the degree of gender or racial heterogeneity, and the configuration of existing

social networks. Factors in the products and services domain include material resources such as access to money, land, services, etc. The governance domain includes formal rules and regulations (laws, policies or religious rules). Social norms – expectations and beliefs about others' behaviors – are found in the intersection between the individual and social domains.

The flower framework also helps to explain why people can and do break norms – when other factors within the framework exert a stronger, opposing influence to a norm. For example, even in societies where women are expected to not work in paid jobs (a norm), families who lack material means to survive without a dual income may allow and even push the woman to acquire such work. Likewise, an individual's education or upbringing may lead her to hold the attitude that paid work is a woman's right. As another example, norms may allow and even encourage women to use birth control, but if these products are not available and easily accessible in certain geographies, women cannot use them.

Figure 1: Adapted from Cislighi and Heise framework for understanding determinants of behavior



#### 4.2.1. Identifying the reference group

Since different groups subscribe to different rules, it's essential to specify which reference group or groups each identified social norm refers to. For example, even in a small town or village, two different ethnic groups may coexist, with different norms applying within the two groups. People in each group would comply with the norms that exist within their own group but would know that others outside their group behave differently and approve of different things, adapting their actions when they meet them. Similarly, reference groups may change based on age, gender, income, etc.

Throughout this report, as social norms are presented, the relevant reference groups also are identified, especially in regard to gender, ethnicity/community of origin, and urban versus rural context.

#### 4.2.2. Social norms attributes

Norms and the ability to influence them can be measured against three attributes: prevalence, strength and relevance.

**Prevalence** refers to **the extent to which the norm is present and common across the reference group**, which is therefore the extent to which it is held at the collective level. Because not all norms are held by all people within a reference group, the

extent to which the norm could be considered an obstacle or enabler for change depends on its prevalence.

**Strength** refers to **the extent to which the social norm influences behavior**, and how difficult it is to break away from it. In some situations (and especially with respect to gender norms), **a key determinant of the strength of a social norm are the “sanctions” or punishments that an individual would face in breaking the norm.** For example, if a household decided to use a new construction material that, although more efficient and durable, is perceived as “cheap” by the community and would result in judgment or shame, the household would be strongly discouraged from using it. Another well-known, extremely rooted social norm related to house construction is the lack of sanitation facilities built inside homes, and the shame that going against this norm brings among certain communities. The potential for sanctions and dependence on collective uptake make these behaviors harder to change and less reliant on simpler, smaller-scale interventions that are based on access to information.

**Relevance** describes **the extent to which the social norm hinders the achievement of a programming or behavioral change objective.**

# 5

## Methodology

The research methodology was designed to accomplish the research objectives using the two conceptual frameworks described in the previous section. The methodology is outlined below.

### Step 1: Identification of change objectives and research questions

The first step of the research design process was to identify key program change objectives – what the program hopes to achieve or the behaviors it hopes to understand. After this step, more detailed research questions were developed under each change objective.

#### 5.1. Sampling strategy

The sampling strategy was based on the following two key points defining the research scope:

- The study prioritizes understanding the decision-making processes at the household and mason levels.
- At the household level, the study focuses on low-income homebuilders aspiring to build a structure or those who have recently built such structures. Rather than limiting

the study to a strict definition of “low income” based on earnings, this research design focused on people who did not have salaried or steady-wage-earning jobs, which also meant they usually had access to smaller amounts of credit at higher costs.<sup>1</sup>

#### 5.1.1. Phase I

Based on previous research, the Terwilliger Center and MSA assumed that most urban dwellers wished to build incrementally, likely in a rural area and in the husband’s town or village of origin. The first phase of research was carried out in an urban area to investigate this assumption. Korogocho, an urban slum in the northeast of Nairobi that is estimated to be home to 150,000 to 200,000 people, was selected as the research site. Although income levels within the slum vary, the majority of the population was assumed to be earning less than US\$10 a day and therefore fit within the target household group of the Terwilliger Center and Habitat for Humanity Kenya.

<sup>1</sup> In Kenya, both low- and high-income families have access to credit, but the amounts and uses of loans vary. The small amounts of credit available to those without formal credit profiles also tend to have very high interest rates.

Table 1: Change objective research questions

Change objective	Research question
<p>CO1: Understand pathways for low-income households toward homeownership and the role of women in decision-making.</p>	<ul style="list-style-type: none"> <li>• What have been the journeys or pathways of low-income families, both in peri-urban and upcountry areas, who already have built homes? What were their housing situations before building? What key factors enabled them to build?</li> <li>• What are the roles of men and women at different stages of the housing decision-making process? How do men and women differ in these?</li> <li>• How have households made decisions on:               <ul style="list-style-type: none"> <li>» Timing: Why did they decide to start building when they did?</li> <li>» Home location: Did they consider other locations? How did they choose the specific site? Was land titling an issue?</li> <li>» Home design: What is the design? Which parts are they happy with? Are there parts they are not happy with or would have done differently? What other homes in their community do they admire and why?</li> <li>» Materials: What materials were used? How did they choose them?</li> <li>» Labor: Who built the house? How were these workers chosen? What questions did the homeowners ask potential <i>fundis</i> before selecting one? Did they advise the builders on any part of the process? Are they happy with their choice of labor? Who within the household supervised construction?</li> <li>» Financing: How was the house financed?</li> </ul> </li> <li>• What have been the impacts of home ownership on households, and what are their remaining housing aspirations? Do they consider the home they have built to be a "good" home? Do they plan to inhabit this home for the foreseeable future? If not, where else would they like to live and why? Are there any drawbacks to living in the home they have built?</li> <li>• Who influences the decision-making of men and women in the housing process? What are their key sources of information?</li> <li>• Which social norms influence the ability of men and women to engage in housing construction decision-making? How malleable are these norms?</li> </ul>
<p>C02: Increase <i>fundis</i>' practices that result in higher-quality, faster and less expensive construction for low-income homebuilders.</p>	<ul style="list-style-type: none"> <li>• What are <i>fundis</i>' mobility pathways? How do <i>fundis</i> move up in their line of work, e.g., to take on larger-scale projects or become foremen or contractors? What key factors enable this mobility (e.g., training, accreditation, connections, access to capital)?</li> <li>• What is the scope of work of larger-scale <i>fundis</i> and foremen? Who are their clients and why? Are their clients self-building? Are there developers that focus on lower-income housing, particularly in urban areas? Which subcontractors do they work with (if any) and why?</li> <li>• How do they select and source materials? Who influences their choices?</li> <li>• How do gender roles influence their interactions with clients?</li> <li>• Which social norms influence a <i>fundi</i>'s decisions to work with low-income consumers and contractors? What about female vs. male clients? How malleable are these norms?</li> </ul>

During the first phase, the research team interviewed women and men in Korogocho households, along with masons and key influencers. Masons and influencers were identified before and during the fieldwork. Households were initially selected

using a stratified sampling strategy<sup>2</sup> whereby the villages (subneighborhoods) within Korogocho were considered as

<sup>2</sup> In stratified sampling, the sample is created by first dividing the population into homogeneous segments. The sample then is chosen randomly from each of these segments.

## Box 1: A brief background of Korogocho

Korogocho, a 1.5-square-kilometer neighborhood in the northeast of Nairobi, is estimated to be home to 150,000 to 200,000 people.<sup>a</sup> Located 11 kilometers from the city center, Korogocho was originally vacant government-owned land that became occupied by rural migrants to the city in the 1960s. Its residents belong to more than 30 ethnic groups, although most are Kikuyu, Luo and Luhya peoples from western and central Kenya. There is also a large proportion of the community that hails from northern Kenya. The slum is divided into nine “villages” (or subneighborhoods), each of which is largely populated by residents from the same community or ethnic group. Most of the slum’s residents are tenants rather than owners of the structures that they inhabit. The area has a relatively stable population, with many of the residents having lived in the area for several years or even decades.<sup>b</sup>

In 2009, the government of Kenya, with funding from the Italian government, created the Korogocho Slum Upgrading Programme, or KSUP, meant to include upgrades to access roads and the construction of a hospital, a footbridge and a public toilet. A residential committee was formed to ensure that the views of Korogocho’s residents were considered in decision-making, consisting mostly of elders from the slum’s nine villages. The committee says it has initiated a land subdivision and titling process with support from the government, whereby “beacon certificates” of land are awarded to plot owners. The committee reports that this process has created – and likely will continue to create – tension within the community because:

1. The new subdivisions are “standard” plots of 33-by-33 meters, which do not always match the way plots are currently set up. Under this new standard, an existing structure may fall on a neighbor’s plot.
2. “Semipermanent” houses (i.e., those built from iron sheets, recycled drums or mud), which make up the majority of structures in the area, will be demolished to be replaced with permanent stone houses. This poses significant financial implications not only for landlords, but also for tenants who will have to vacate the premises during the construction and will likely no longer be able to afford the increased rent of the new structures.

In addition, some residents of Korogocho contest the legality of the entire upgrading process and the legitimacy of the resident committee itself, claiming that the committee is simply after money. “Beacon certificates” require a fee, and the value of land in Korogocho is high, with some reporting that the cost of a plot has increased from between 300,000 and 400,000 Kenyan shillings back when the area was first settled to between 1.8 million and 1.9 million KES today.

It is clear that the process has created considerable uncertainty over the security of tenure within Korogocho, which in turn has influenced many residents’ housing choices and aspirations.

<sup>a</sup> Kenya census figures were not available at the neighborhood level (only at the county and district levels), so figures from other research (cited next) are used.

<sup>b</sup> Donatien Beguy, Patricia Elung’ata, Blessing Mberu, Clement Oduor, Marylene Wamukoya, Bonface Nganyi and Alex Ezeh. “Health & Demographic Surveillance System Profile: The Nairobi Urban Health and Demographic Surveillance System” *International Journal of Epidemiology*, 2015, 462–471.

strata already divided by community and group of origin. A “random walk”<sup>3</sup> technique was then employed to select respondents within each village. **Most respondents selected using this technique struggled to speak about their**

<sup>3</sup> Walking through each village within the sampling area, researchers selected households and respondents at random. The random walk is a common sampling method used when a complete sampling frame (i.e., a list of all households in the sampling area) is not available or accurate.

**homebuilding aspirations, likely because of an income level that was too low to allow them to envision homebuilding within the medium term.** Although these interviews were valuable for understanding what very-low-income residents of Korogocho aspire to in terms of housing, the research team decided to shift to a more purposive sampling strategy. With the help of community mobilizers, the first phase of research consisted of household interviews focused on identifying

and interviewing respondents who had already built, were in the process of building, or were close to building (i.e., had expressed a clear wish to build to others in their community).

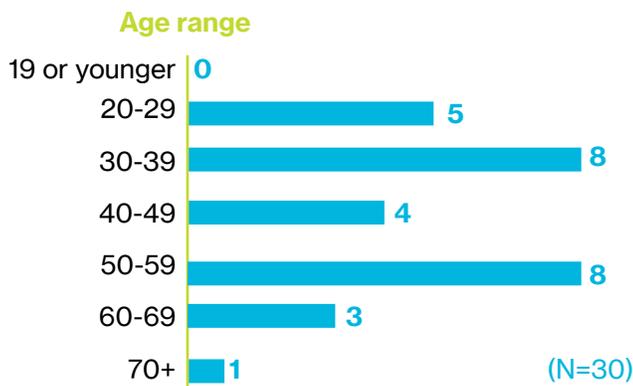
**The majority of household respondents consequently fell into the category of incremental homebuilders.** It is likely that these households were wealthier than the average household in Korogocho.

Interviewees during the first phase of fieldwork had the following characteristics that are important to note in considering the findings:<sup>4</sup>

- In terms of age, **the majority were in their 30s and 50s.** Other age groups were fairly evenly spread.
- The majority of interviewees hailed from **western Kenya, followed by northern and central Kenya.** This reflects the composition of Korogocho overall, although efforts were made to interview and highlight the views of residents from northern Kenya.

Interviewees included a number of microentrepreneurs, such as livestock traders and food sellers, who generated a relatively steady source of income that also allowed them to save some money. Among the lowest-income residents were those who performed casual labor or odd jobs such as washing clothes. Since their income was both small and erratic, they rarely reported being able to save money toward a house. Wage-earning employees were rare in our sample, which is likely representative of their presence in Korogocho overall.

Figure 2: Interviewees' age



<sup>4</sup> Interviewees who did not disclose certain attributes (e.g., age, geographic area of origin) are not included in the figures, so totals do not always add up to 32.

Figure 3: Interviewees' area of origin

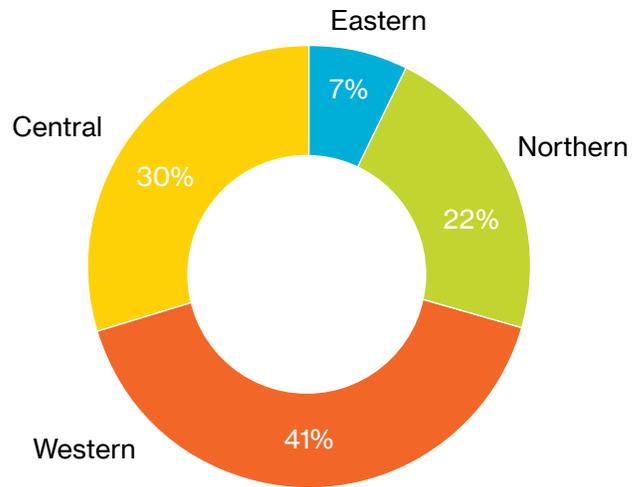
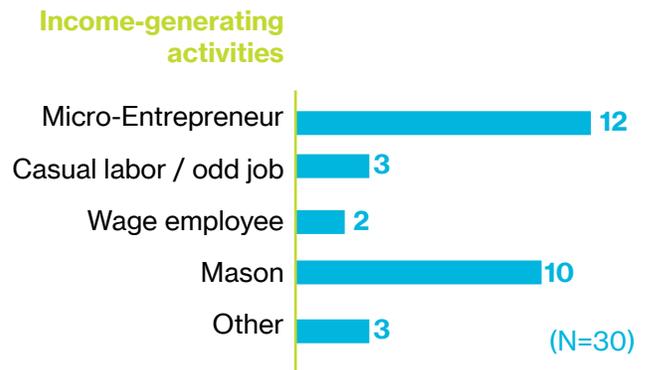


Figure 4: Income-generating activities of interviewees



### 5.1.2. Phase II

The second phase of research took place in two areas to trace the different pathways that homebuilders took after leaving an informal urban settlement:

1. Nairobi and peri-urban areas where former residents of Korogocho have built homes. These sites included Kayole, Chokaa, Ruai and Lucky Summer. These participants were interviewed to understand the pathways of people building in urban areas.
2. Siaya county in western Kenya. Several former residents of Korogocho and similar informal settlements in Nairobi have relocated to Siaya to build houses. These participants were interviewed to understand pathways to building upcountry.

In both of these areas, the study again employed a purposive sampling strategy to interview former residents of Korogocho and other informal settlements in Nairobi (e.g., Kibera, Dondora) to **understand their pathways to homeownership and how these pathways differed across urban and rural areas.** *Fundis* and foremen operating at a larger scale than the *fundis* were also interviewed in the first phase with the goal of **understanding *fundis* mobility pathways** (i.e., how they progress in their profession).

Of the 22 household interviews conducted during the second trip, approximately two-thirds were in peri-urban areas as shown below. The majority of household interviewees were in their 30s and 40s. In terms of gender, this research focused on understanding women’s roles and preferences within housing decision-making, so the vast majority of household interviewees were female.



**Box 2: Brief background of Siaya**

Siaya county, located in western Kenya, is close to the Ugandan border. The 2009 census reports the county population at 842,304 people, 89 percent of whom live in rural areas of the county and are engaged in agriculture (farming or raising livestock). The majority of Siaya’s population is Luo – a key fact to be considered, as many of the norms identified in rural areas are highly specific to this community and to the western region of Kenya.

Figure 5: Breakdown of household interviews (research phase 2)

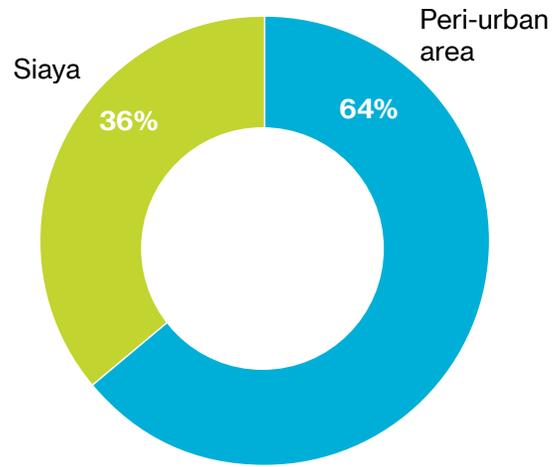


Figure 6: Age of interviewees from households (research phase 2)

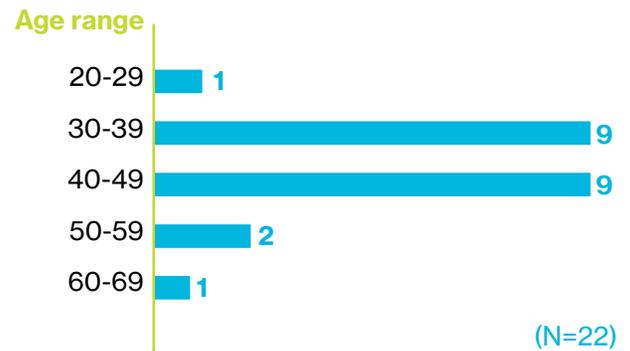
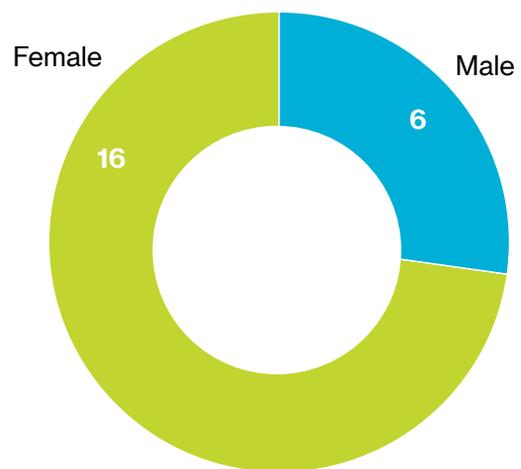


Figure 7: Gender breakdown (research phase 2)



The following table summarizes the interviews conducted for both phases of research:

Table 2: Summary of interviews

Type of interviewee	Korogocho	Greater Nairobi	Siaya	Total	Notes
Females in households	13	6	8	27	Includes several female-headed households.
Male heads of household	7	3	3	13	Includes several landlords and structure owners.
<i>Fundis</i> , foremen, contractors	10	5	6	21	Includes six larger-scale foremen and contractors.
Key influencers	6	3	3	12	Includes three hardware retailers (two in Siaya, one in Nairobi), one polytechnic institute (Siaya), three savings groups in and around Korogocho, one residential committee representative (Korogocho), one village elder (Korogocho), the Kenya Engineering Technology Registration Board (KETRB), and two land brokers (Greater Nairobi).
<b>TOTAL</b>	<b>36</b>	<b>17</b>	<b>20</b>	<b>73</b>	

## 5.2. Data analysis

All collected data were inputted daily into Nvivo, a qualitative data analysis software. Data was then coded according to themes and subthemes. Nvivo also was used to analyze the data and produce key findings.

## 5.3. Research limitations

Limitations of this research project are described below.

1. Longer, in-depth interviews were the main research tool, which limited the sample size. Specifically, only 40 household members and 21 *fundis* were interviewed, which cannot be representative of the communities in which the research was conducted. Nonetheless, the research team is confident that “saturation”<sup>5</sup> was reached on most topics.
2. Some biases were present. A purposive sampling strategy was used, which is technically less representative of a community or group than random sampling. For example,

<sup>5</sup> Saturation in qualitative research refers to the point at which no new information or themes are observed in the data. This is a useful concept, especially for nonprobabilistic (i.e., non-random) sampling techniques such as purposive sampling. Other research has found that saturation generally occurs within the first 12 interviews, and basic elements for metathemes can be uncovered in as few as six interviews. Source: Guest, Bunce and Johnson. “How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability.” *Field Methods*. Vol. 18, Issue 1, pp. 59–82. Feb. 1, 2006.

most of the contractors interviewed were identified through Habitat for Humanity Kenya’s partner iBuild. Unsurprisingly, most of these contractors stated that iBuild was a key source of business for them; this may not be the case for all or even most contractors in Kenya.

3. The second phase of research was conducted partially in Siaya, in western Kenya. This area has specific cultural norms that likely differ from other communities in Kenya. As such, although findings are presented in terms of norms in urban and upcountry (rural) areas, the findings from Siaya are not necessarily representative of other rural areas.

It is important to note that research was carried out in settings with diverse groups present (e.g., Korogocho), and in relatively homogenous settings (e.g., Highridge in Korogocho, Siaya county). From a norms mapping perspective, there are advantages and disadvantages to both research settings. In a culturally or ethnically homogenous setting, it may be easier to observe prevalent norms within that group. In a heterogenous setting, it might be easier to discern the strongest norms among certain groups, along with the sanctions for breaking them. Likewise, in a homogenous setting, researchers can delve deeper and spend more time unpacking attributes of norms within a specific group, but in a heterogenous setting, researchers can more easily identify norms common across all groups.



# Key findings and analysis

Findings are presented in terms of:

- a. Information flows and actors that influence agents' (households and *fundis*) decision-making.
- b. How they respond to the change objectives and the specific research questions within those objectives.
- c. Observed norms, defined as "informal rules that govern collective behaviors and expectations of behavior."<sup>6</sup> (Although some questions and responses specifically include the word "norms," most of the findings speak to norms.)

Where relevant, illustrative quotes and mini case studies are included. **Findings should be taken as applicable to urban, peri-urban, and rural areas where fieldwork was conducted unless otherwise indicated.**

## 6.1. Information flows and influencers

As an overview of the detailed findings presented in the following sections, **Figure 8** on the next page depicts the flows of information and key actors that influence households on

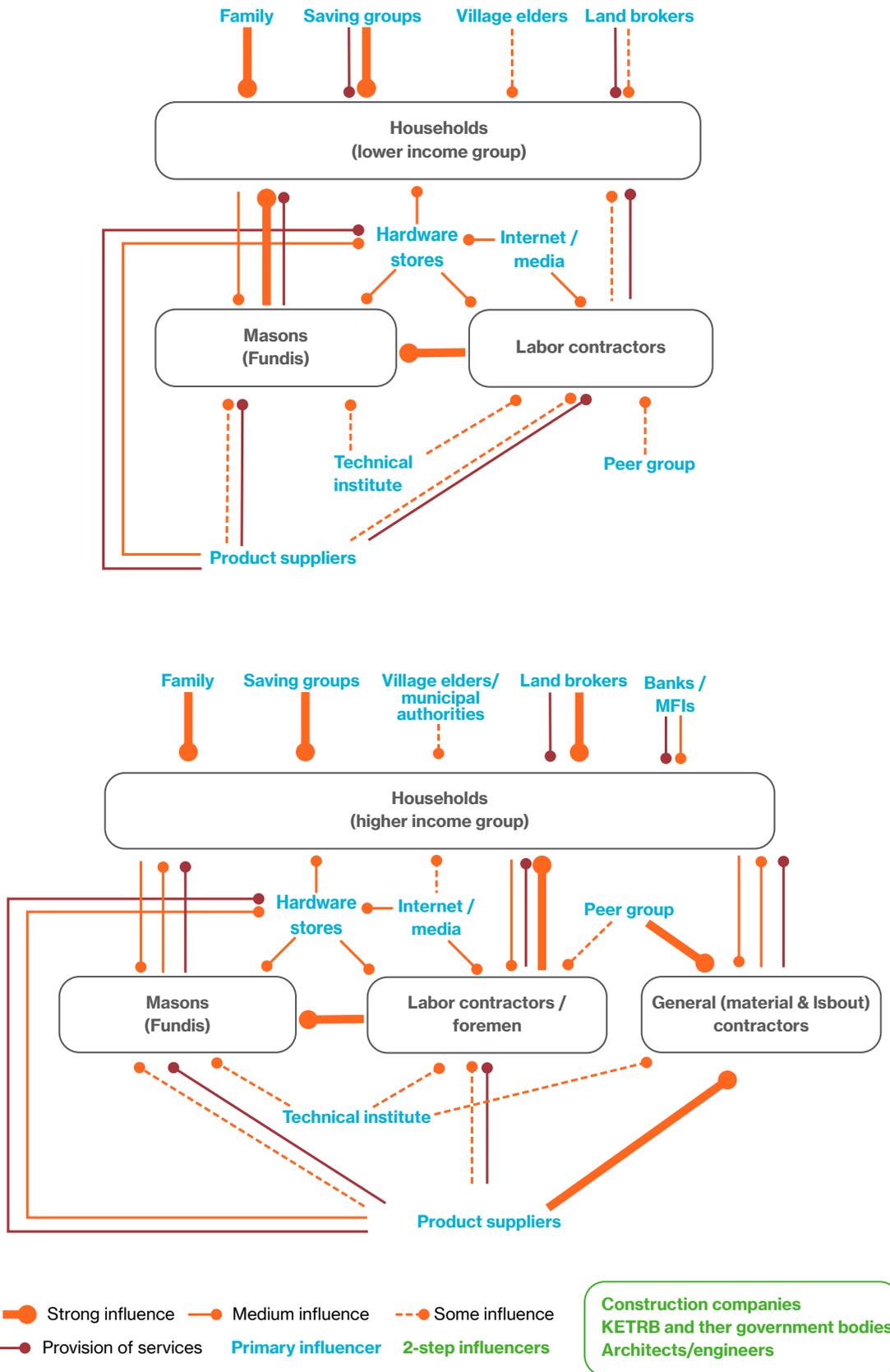
<sup>6</sup> MarketShare Associates (2016). *Disrupting System Dynamics: A Framework for Understanding Systemic Changes*. USAID. Available at <http://bit.ly/2rFAu8l>.

their pathways to homeownership, along with the *fundis* who build for them.

Note that the **black arrows represent the strength of influence of different actors, while the red arrows represent exchange of services or goods**. There are no two-tailed arrows because actors can exert different levels of influence on each other. Information flow exercises also identified "two-step-removed influencers," which are actors that do exert some influence on both *fundis* building for low-income households and those households themselves but exert this influence indirectly through other actors. Thus, although they are two steps removed from our primary interest groups, they could eventually represent high-leverage intervention points that could catalyze large-scale systemic change (e.g., a policy change or a change in the practices of large construction companies).

**Two different diagrams are provided because actors and the level of influence they exert on households seem to vary according to households' wealth levels, even within the wealth parameters of this research.** Although this research

Figure 8: Influences on households' pathway to homeownership



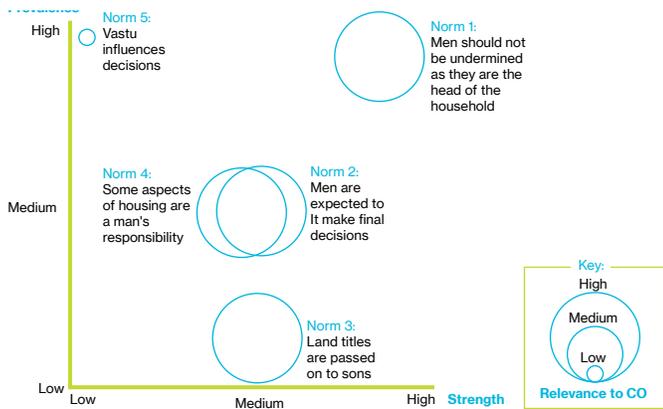
did not attempt to measure or calculate household incomes, we observed that households whose members had irregular jobs (e.g., clothes washing or odd jobs) or were in agricultural production tended to have lower incomes. As a result, they could generally afford to build only semipermanent structures, both in urban and rural settings. On the other hand, higher-income households included members with a profitable microenterprise or wage-paying job, and sometimes also received financial support from relatives. These households were able to build more permanent structures (i.e., with brick or stone walls), sometimes on land that they had purchased.

It is important to note that these two diagrams are not binary conditions. Rather, they represent two ends of a spectrum, whereby the wealthier a household becomes, the more the influencers and information flows shift to more closely resemble the diagram on the right.

The main lessons from the mapping of influencers and information flows are detailed below.

### 6.1.1. Detailed findings – households’ influencers and information sources

Figure 9: Influencers and information sources by income



**Flows of information to lower-income households are few, and households rely primarily on advice from friends and family.** House construction decisions are made primarily within the households, with limited external influence. Households seek the advice of family and friends, but ultimately, decisions are made between husband and wife, with the husband usually leading (see more on this in the section 6.2.4, the role of Men and Women’s Roles under Change Objective 1).

**Higher-income households have more numerous and diverse sources of information than lower-income households.**

Higher-income households spend more time scouting for the best location to build, the best *fundi* or foreman, and the best materials. In doing so, they consult different sources, including various “levels” of masons, land brokers and the Internet. As a result, they also developed stronger opinions on house construction, but their decisions were still influenced by (more experienced) *fundis*, contractors and, in some cases, even engineers and architects.



*“There is a foreman who determines the number of fundis and supervises. I also go in the evening to see what has been accomplished and to pay. We got the referral for the foreman from others who had built in Chokaa. Talked to a few foremen, asked for references from their previous clients, asked about their temperament, work ethic.” – A man who has built with his sister (who lives in America) in Chokaa, on the outskirts of Nairobi*

*“A friend of mine linked me to an architect. Once the drawing was done, I found a fundi. The architect helped me identify a good fundi.” – A woman who has built in Chokaa*

### Savings groups have a strong influence on the decisions of both lower- and higher-income households.

Most of the interviewees we spoke to, especially women and those with clear housing aspirations, were members of an informal community savings group. Not only do these groups incentivize members through peer pressure to save, they also provide loans that are a critical component to their members’ homebuilding efforts.

### 6.1.2. Detailed findings – influencing masons’ practices

**As *fundis* progress, they access more diverse information sources.** This is explored further in the section 6.3.1 on mason classification and mobility pathways. In brief, *fundis* tend to rely on word-of-mouth within their networks and at the construction sites where they work for both job opportunities and knowledge regarding new materials or technologies. Larger-scale labor and general contractors, on the other hand, draw upon a variety of sources for these purposes, including Facebook, Google, smart phone applications and web-based matching services such as iBuild and Fundichapchap, trainings and expos organized by materials manufacturers, and the Kenya Bureau of Standards.

**Technical training institutions have a weak influence on masons' practices, yet they play an important role in their career progression.** Both *fundis* and contractors stated that most training programs were overly theoretical and of little relevance to their day-to-day work. However, they also agreed that to progress in the industry, certification from one of these institutions was critical, because many government and private companies consider certifications in awarding tenders.

## 6.2. CO1: Understand pathways for low-income households toward homeownership and the role of women in decision-making

Findings under Change Objective 1 are presented by norms influencing the desire and the ability to build. Next, this section explores the building process itself, including design, materials and labor choices, and the roles of men and women within each step of the process.

It is important to explain the norm of incremental homebuilding in Kenya. Buying a “prebuilt” home is not common in Kenya, especially among low-income households. Rather, most households at these wealth levels construct a home over the course of years, adding to it as the flow of income allows. Readers should also note that the labels “semipermanent” and “permanent” refer to the materials used to build a structure rather than to the actual habitability of a house. Semipermanent houses generally have walls made from mud or iron sheets and roofs made of thatched hay or iron sheets. Permanent structures, on the other hand, have either brick or stone walls and iron sheet roofs. Both types of structures can be and are inhabited by households over long periods. Permanent structures tend to be both more expensive and more durable, and many households aspire to build permanent structures given sufficient resources. Households also may initially construct semipermanent houses and later upgrade the walls or roof to permanent materials.

### 6.2.1. Desire and ability to build



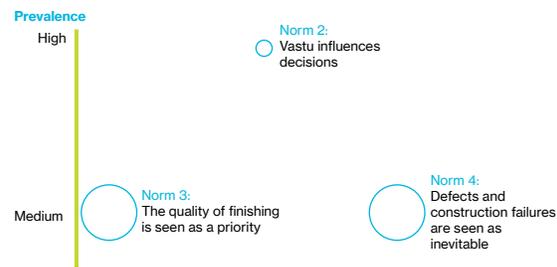
*“Shelter is a physiological human need. It is like food — so much so that even those who cannot afford it still need it.”*

– Wafula Nabutola, owner of MyRita Consultants<sup>7</sup>

<sup>7</sup> Nabutola, Wafula. “Affordable Housing – Some Experiences From Kenya.” 2004.

The desire to build is one of the steps on the journey to homeownership that is most deeply rooted in social norms, arising from the intersection of social and individual factors. The ability to build, however, appears to be more dependent on material factors (e.g., financial resources, access to property) and structural factors (e.g., land tenure laws). Although this research focuses on social norms, the factors influencing both a household’s desire and ability to build also are explored.

Figure 10: Factors influencing the decision to build



**Figure 10** summarizes the factors that influence the decision to build.

Although some households said they prefer to live in informal settlements because of a low cost of living that allows them to save for things like a better home, **many low-income households, especially in urban areas, are far from building a house because all of their money goes to meeting short-term needs such as children’s school fees or rent.** When asked about housing aspirations, they could usually speak at length about urgently-needed repairs, such as leaking roofs or wet floors from the rainy season.

Although homeownership was not always feasible in the foreseeable future, **both men and women from most communities we interviewed** expressed a strong desire to build a home. Even households that were not financially close to starting construction (or even starting to save to build) still expressed a desire to eventually own a home if they could accumulate enough resources to do so. This desire is rooted in the underlying norm of a home of one’s own being associated with prestige and security, and seen as a wise investment.



*“Everybody is building, so you have to look like you’re building too.”* – A man from northern Kenya



*“If you work in Nairobi and build back home, you are seen as successful” – A woman from eastern Kenya*

In contrast to building, **renting was seen as a waste of money, and security of tenure, especially in informal settlements, is usually uncertain.**



*“People only used to rent, but now increasingly many more are building. People used to feel that when you are renting, that really isn’t your home until you put up a house in your home county [...] People are also building more because it is a business opportunity, i.e., can be rented out. Renting for a long period of time is not logical, but building your own house, even if it’s a slow process, is a better investment” – A man from northern Kenya*

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*“I’ve also built a house on land I own in Busia. I bought the land in Busia because I have a family and was looking at my future. When I look at Toi Market and Kibera, and the security of land here, I know it’s risky. We are faced with eviction at any moment. I decided to build a permanent residence in Busia so I have an alternative to move to if I am evicted. I would return there immediately and then be able to plan my next move.” – A man who rents near Kibera in Nairobi*

Another important incentive for people to leave informal settlements, whether for upcountry or peri-urban areas, was **the perception of informal settlements as having a “morally impure” and discouraging environment.** Parents especially did not want to raise children in an environment filled with high peer pressure (e.g., to do drugs), a higher risk of their children dropping out of school, and a lack of hope for a better life.



*“In Korogocho, there is a lot of influence from peers; people do whatever other people are doing. There is a tendency for people to just live day by day. In this community, there is a different mindset — that you can lead a different life. Even my kids now are growing up with this better mindset. People in Korogocho are confined to a mindset of day-to-day survival.” – A man who has built in Lucky Summer, on the outskirts of Nairobi*

For both men and women, **the desire to build** upcountry versus in an urban area varied depending on several factors, in particular their **community of origin and associated norms around “home.”** People from **western, central and eastern Kenya** operated within norms of having **their own house in their home village to stay in when they returned for the holidays or other** occasions such as weddings or funerals.

- For western Kenyans, especially for Luo and Luhya people, there was also a strong norm of being buried at “home” on family or ancestral land. This “home” must include a houselike structure, even if it is small and semipermanent; it cannot be “empty” land. There also appears to be a norm within this community for men to build shortly after marriage, before having children.



*“This land belonged to my father-in-law. Other sons have died. When we came back, we stayed in the dead brother’s house (who had already built on the land). No one lives there now. But in Luo tradition, we need to build our own house. We can use the dead brother’s house for storage, but his son (who lives elsewhere) doesn’t want to rent it out. So for now, it remains empty.” – A woman who has built a semipermanent mud structure in Siaya*

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*Florence has been living in Siaya since 2014, when her family moved from Nakuru. She had been pushing her husband to build a house for her because he had already built one for his second wife. They own this house, which is a temporary structure built in one day, with mud walls and iron sheet roofs. They also have a two-room permanent house next door that is meant for rental. It is joined to her husband’s brother’s house. But she can’t live there because it’s not culturally appropriate to share the same roof as her husband’s brother.*



In contrast with norms among western Kenyans, another important norm shaping the desire to build is the **perception of rural areas that are tribally or ethnically homogenous as being more secure than “mixed” areas**, which are usually urban. In Siaya, **people moved back from Nairobi** because of violence after the 2007-08 election and the resulting economic downturn. Even in subsequent years, people have continued to return and build in Siaya because they view urban areas as more prone to ethnic violence.



*“If the post-election violence hadn’t happened, we would probably still be in Nairobi. I was making good money buying, roasting and selling maize. Maybe the business would have gotten even bigger and I would have become a supplier to other maize sellers. If we’d stayed there, I probably wouldn’t have built here. But it was a blessing in disguise that we did come back here, because we’ve done well here — better than we would have thought we would. We never thought we would build anywhere.”* – **A couple who have built four rental units in Siaya on the husband’s family land**

Both men and women from **northern Kenya** and of Somali descent expressed little desire to build in their counties of origin. Instead, the norm in this community was to **build a life in urban neighborhoods with others from their community**. The time and financial cost of traveling “home,” the harsh conditions there (e.g., weather and insecurity), and the perceived lack of economic opportunities back home deterred their desire to return.



*“We prefer to stay in neighborhoods like Korogocho or Kibera or Mkuru kwa Njenga because our people (Garri) like the feeling of community. In Korogocho, there are many of us, but in other neighborhoods they may be few. Also, in Highridge there is a mosque, a school for our children. Even if you have enough money to build in a nice neighborhood like Westlands, we would prefer to live with others from our community. Generally, people would rather rent or own in the city. Buying land in Nairobi is a good investment versus in Mandera, where the value of land is low and stagnant. Also, the time and cost to travel to Mandera is very high, and most Garri families in Nairobi have been here for a long time, so this is now their home.”*

– **A man from northern Kenya**

For those who did have ancestral family land upcountry, there appears to be **a strong norm of building a house structure on that land to protect it** from being sold or taken by other relatives. Many times, people put up semipermanent structures to protect against land-grabbing – especially by siblings or relatives – even if no one was to live there. Not all residents of the informal settlements we interviewed had access to family land, and those who did not were much less likely to envision building upcountry. Having to purchase land adds significantly to the time and financial cost of building, so much so that it may deter households from aspiring to build altogether (at least in the short to medium term).



*Linda and her husband are building on the husband’s family land in Muranga, in central Kenya. Her father-in-law would not subdivide the family land until the children showed clear intention to build. She feared that her husband’s other siblings might “grab” the land, so she urged her husband to put up at least a basic structure so they could claim the land as theirs.*

**Steady income** was critical in allowing households to save to build. This took the forms of either a wage-paying job or a profitable small or microbusiness (e.g., selling vegetables or cooked snacks, selling local brew or bread, raising and trading animals, owning a small retail shop). **A steady flow of income enables households to think beyond their immediate needs to longer-term aspirations.**

**Similarly, the perception of livelihood opportunities also strongly influenced where people wished to relocate.** Some said they could easily relocate their businesses back home versus others who saw few opportunities there. Many also preferred to build in cities where there is significant business activity and a greater chance of finding jobs, along with better (perceived) educational institutions for children.



*“Most people will not choose to live in the village before retirement because work opportunities are in the urban places, and sometimes people don’t want to live in the village because it is a difficult life of hard labor.”*

– **A man from central Kenya**

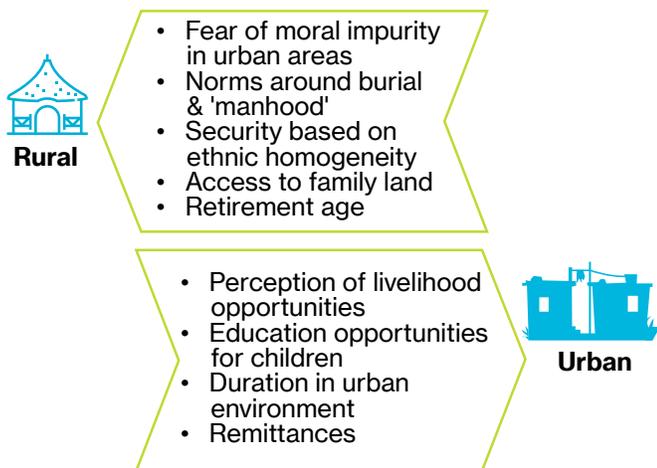


Gina sells bhajjas and other fried snacks in Korogocho. Her husband is a mason. They recently bought land in Athi River, 30 kilometers from the center of Nairobi. They chose this area because her sister lives and works there but also because people are building a lot in that area so it will be easy for her husband to find work. She will find a place to sit and sell her snacks.

Savings discipline is a function of the desire to build and hugely impacts a household's ability to build. Many of those who have built or are close to building participate in a savings group, have a bank account, or otherwise regularly designate money to homebuilding (e.g., by sending it via a mobile money application immediately to the person managing the building process). Some households even start building so that they won't be "tempted" to use the money for other things.

"It's important to give people goals and lock part of their savings. Savings which you can easily access aren't really savings." – **A financial service provider in Kenya**

Figure 11: Factors influencing where to build



Other factors that influenced people's desires around where and when to build include:

- Children's educational opportunities: People with children who were still in school generally viewed access to higher-quality education to be much greater in Nairobi, and therefore planned to stay there until the children finished school.

- Length of stay in urban areas: Those who were born and raised in urban areas were less likely to affiliate the familial county of origin with "home," and showed less desire to build back home.
- Age: Somewhat contradictory to the previous point, older residents generally desired building back home to have a peaceful retirement.

Figure 11 summarizes the factors influencing the decision to build in a rural versus urban area.

**Supportive connections and relationships** also impacted a household's ability to build and its decisions on location, design, materials and labor. Examples include a village elder who helped a woman secure a plot in Korogocho, a donor with a client who facilitated getting a job, and adult children who contributed money to the parents' homebuilding effort. **Remittances from family members – usually living abroad – are particularly critical for people building in urban or peri-urban areas, which usually requires significantly more resources than building in a rural area.**



"Korogocho buyers may buy 100-by-50-meter plots in Lucky Summer or Chokaa from 800,000 to 1.2 million KES. Most get money from family members." – **A land broker in Korogocho**

Lastly, a household's ability to build has no clear benchmarks. Some people preferred to wait to build and save for more permanent materials and larger structures, but many put up semipermanent structures on family land either as soon as they were able to or when an external event triggered them (e.g., post-election violence or an illness or death in the family). **Like the desire to build, ability to build is, to some extent, a matter of perception.**



"If I'd had money, I would like to build a stone house. But I chose to build a semipermanent house with the money I had rather than wait to accumulate enough money to put up a stone house. I needed to show ownership of the parcel of land I own as subdivided by my father, and I did not want to lose it to my siblings because the land is not very big." – **A man who built in Muranga, in central Kenya**

Figure 12 on the next page summarizes some of the key norms discussed above that influence households' motivations and pathways to homeownership. The figure also relates the prevalence, strength and relevance of the norms to Change Objective 1.

### 6.2.2. Building process

The decision to build is not necessarily a choice between urban and rural areas, but rather a prioritization of which one to focus on first. In most cases, **people tried to balance the quality of life and security of rural areas with the income-earning opportunities of urban areas.** Many of the relatively higher-income households who had built in peri-urban areas also already had planned or were in the process of planning to build upcountry.



*“The area where I’ve built the house is more rural. I don’t want my kids to stay in the slum. But I haven’t moved to the new house because of economic opportunities and because the kids still go to school here. We go there on weekends and during the holidays. I am trying to balance opportunities in Korogocho with quality of life in Riuru. Many people who are here build a house somewhere else but operate between there and Korogocho, because they operate businesses here. They move to Riuru, Morera, Chokaa. Most people who are able to build own a business in Korogocho.”*

**– A woman who has built in Riuru, on Nairobi’s outskirts, but still lives in Korogocho**

For those who didn’t have family land to build upon, **land brokers** play an important role in determining the locations where households build, particularly in urban and peri-urban areas. Although these actors help households build, they are not always “positive enablers,” as the consequences of working with an illegitimate broker can be severe. Brokers who seem to be more credible insist on doing a thorough check at the registry to ensure that the land is truly for sale by the registered owner. However, even with the help of “good” brokers, the process remains fraught, as the **system itself is highly dysfunctional.** As a recent review of urbanization in Kenya finds, “High costs, high risks of forged land documents, and long delays tied to land transactions contribute to poor functioning of urban land markets. Under the formal market system, it takes an average of 72 days and 4.3 percent of a property’s value to register it. This, with the high risks of corruption in the sale and issue of title deeds, forces many to obtain land through informal channels so that only a small

fraction of land transactions are registered. The informal market therefore has become a way for most poor and nonpoor urban residents to access land for housing.”<sup>8</sup>

*Ven, a woman who used to live in Kibera but has now built in Umoja, found the land for her house through her savings group. She fears that the people who sold them the land were dishonest and didn’t actually own the land. She is therefore worried about security of the land and her property. Ven’s household are now being told by the same buyers that they need to buy the title again. “They come to the house as a group and harass you and extort money from them.” Ven says. “If you don’t pay them off, they might come back and evict you and destroy your property and resell the land to someone else. They also extort money from you while you are constructing. When a car is coming to bring building materials, they will block the car and extort money from you before it can pass.”*



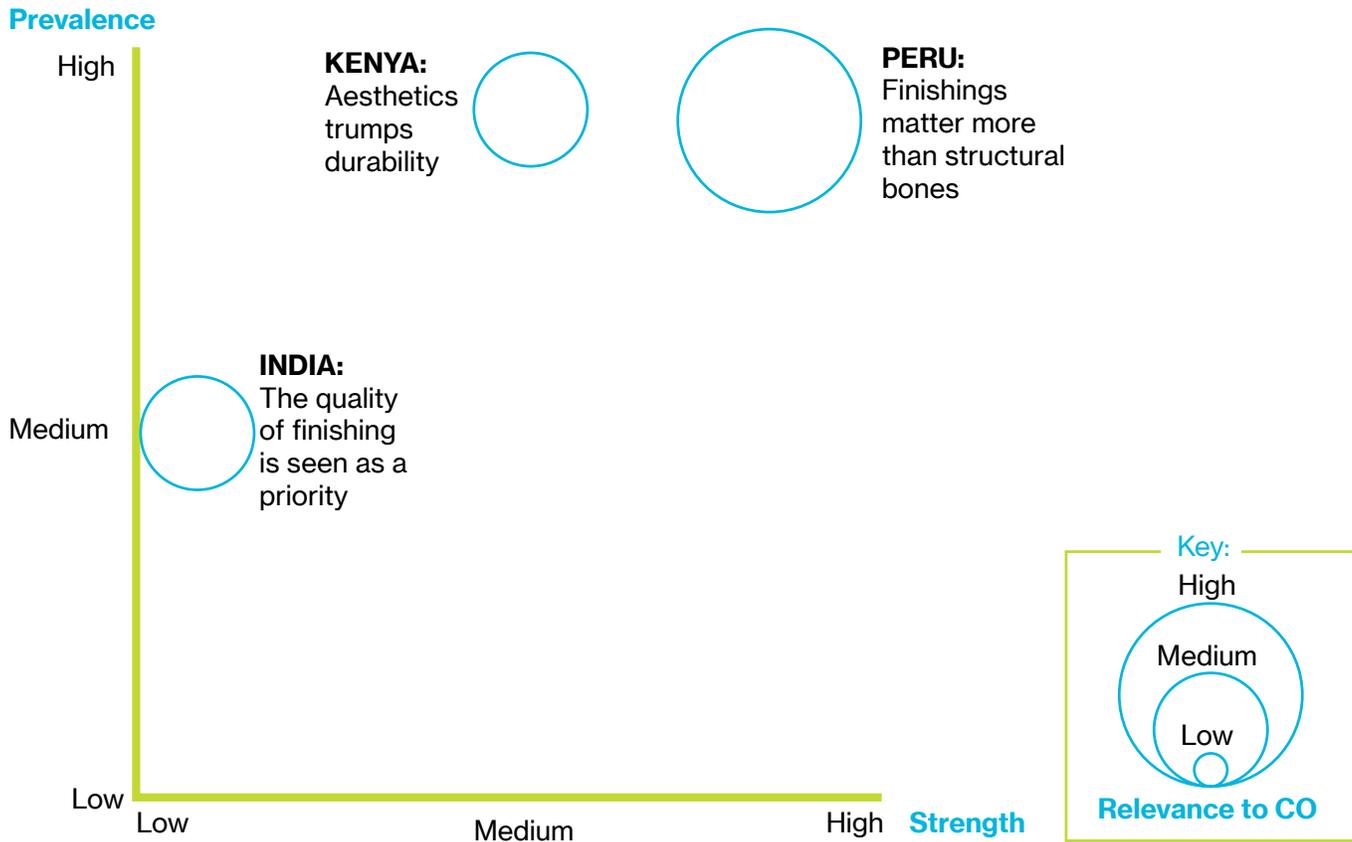
*“We built a smaller house initially in 2004 and then built this larger one in 2006. The smaller one had a grass thatched roof, so we often had to replace it. We wanted to build a larger one. This structure is almost three times the size of the previous one. This one also has iron sheet roofs that won’t need to be replaced.”* – **A woman who has built in Siaya and previously lived in Kibera (Nairobi)**

*Paul Richard started building in Siaya in 2007-08 on land that his parents had bought. He accumulated materials – iron sheets, nails, timber – “slowly by slowly” for about eight months. Then fundis built the house in one week. The house has iron sheets for a roof and mud walls. Paul Richard hopes to save enough money to put up brick walls, building them around the mud walls and then demolishing the mud walls.*

**The Internet is increasingly part of the homebuilding process,** used both by households to find services and by service providers to advertise via websites and communication apps. This is especially the case for higher-income homebuilders. TilePro and another large-scale contractor said that most of their clients find them through their website and Facebook page. Fahari Africa Land Brokers, a group of brokers specializing in land in Kariobangi, Chokaa, Lucky Summer and Mululongo (peri-urban areas) also report the same. Savannah Hardware in Siaya town also regularly promotes products on its

<sup>8</sup> The World Bank. *Republic of Kenya: Kenya Urbanization Review*. 2016.

Figure 12: Norms mapping of households' motivations for homeownership



Facebook page and shares them through its Whatsapp group with clients.

### 6.2.3. Housing design and materials

**Housing design, including materials used, often depends on cost.** Although a few households could save to afford permanent materials, especially bricks or stone for walls, people generally chose the least expensive materials that would allow them to start building within whatever amount they had decided was sufficient to start building. **People building upcountry were especially price-sensitive in material choices,** likely because they did not plan to inhabit those houses year-round or in the short term.



*“In the village, the materials are much cheaper. In the village, I used bricks to build. In Korogocho, I used timber and iron sheets.”* – **A man from central Kenya**



*“Tenants of Korogocho are mostly building upcountry, usually in western and Nyanza provinces. They buy materials here (in Kariobangi or Nairobi) because you might not be able to find what you need. But even after they build, many will stay here because this is where they can earn money. The upcountry house is for the holidays and a place to be buried.”*

– **A hardware store in Nairobi**

*“Customers are able to differentiate quality of materials and can distinguish between Grade 1, 2 and 3. But people will still choose Grade 3 (lowest quality) because it’s the cheapest.”*

– **A hardware store in Siaya**

*Paul Richard, who used to live in Nairobi but built in Siaya, bought some materials in Nairobi and some in Siaya. Some*

materials are cheaper in Nairobi (e.g., nails and windows), and they do not require extra transport costs. Paul bought timber, cement and other things that are difficult to transport in Siaya.

Another influence on homebuilders' material and design choices was the **norm of conforming to the aesthetic style of other houses in the neighborhood**. For example, one *fundis* said that in Thikka, on the outskirts of Nairobi, where he often builds, clients usually use stone. In Korogocho, iron sheets are more common. The pressure to fit into the aesthetic of the neighborhood strongly influenced homebuilders' material selection in all the neighborhoods we visited, both in urban and rural areas.



*“(The) foreman advises me on where to buy materials – around Chokaa, except for stone and sand, those are brought in from outside. ...in the area, people are generally building with stone. I want the house to blend in and look nice like the rest of the neighborhood.”* – **A man who has built in Chokaa, on the outskirts of Nairobi**

*Paul Richard, who has built a semipermanent house in Siaya, hopes to soon replace the mud walls with brick. He says he is the only person with an “ugly” or semipermanent house in the neighborhood. Once, his 2-year-old daughter asked him why their house doesn’t look like the one on TV. Another daughter said she cannot bring her friends home.*

*Florence, who has been in Siaya since 2014, lives in a temporary structure built in one day (mud walls, iron sheet roofs). “I am ashamed of the semipermanent home I live in,” she says. “It doesn’t look nearly as nice as the other houses around.” The governor of Siaya has a large, permanent house close to her plot.*

Other factors that influenced material and design choices include:

- a. **Regulations and authorities:** In Korogocho, building permanent structures with stone or brick is not allowed according to land tenure laws.<sup>9</sup> Some people also reported that village elders or chiefs forced them to use certain materials (although there was no clear trend here

<sup>9</sup> Lamba, Antony. “Land Tenure Management Systems in Informal Settlements: A Case Study in Nairobi.” 2005. [https://webapps.itc.utwente.nl/librarywww/papers\\_2005/msc/gim/lamba.pdf](https://webapps.itc.utwente.nl/librarywww/papers_2005/msc/gim/lamba.pdf).

in terms of what they chose). In other cases, builders benefited from good relationships with village elders that allowed them to easily acquire land and build.

- b. **Advice of *fundis* and hardware retailers:** Most of the time, *fundis* buy and use exactly what the client specifies. However, in cases where the builder was not sure of the materials needed, or if the mason was particularly concerned about his reputation, he might insist that the builder use higher-quality materials.



*“Masons usually insist on quality products since they want to do a quality job to market themselves and stay in business. As such, those will be considered good *fundis* by the type/quality of work they do.”* – **A hardware store in Siaya**

- c. **Family members:** Family members who already have built tend to give advice when solicited about materials, design and labor. Also, when building back home, intermediaries (often in-laws) may manage the process, help to procure materials, and identify a *fundis*. Both men and women who were building in areas where they did not have family also personally traveled to the site to supervise construction.
- d. **Plot size:** Particularly in urban areas, several people had built two-story houses to maximize a small plot. Usually, they lived in one story and rented the other out.
- e. **Security of tenure:** Tenure security may be one reason that temporary materials are used in informal settlements. Households don’t want to invest much in a structure that they may be forced to leave.

**Men and women agreed on what makes a “good home”:** a permanent structure (iron sheet roof, brick or stone walls that are also plastered, electricity, piped water, plastered walls), several bedrooms (for parents, children and guests), and a self-contained bathroom (indoors).

Many participants said that **a good home was also a good investment if it offered opportunities to earn money**, e.g., by renting out part of the space or leasing farming land. However, the number of low-income households who had actually managed to do this was relatively low in both urban and rural areas because of the additional resources it would have required. **Homebuilders also face a trade-off between building or upgrading to a permanent house** (e.g., by replacing mud or iron sheet walls with brick or stone, or by replacing a

thatched roof with iron sheets) or **building additional rooms to rent out** since they usually could not afford to do both at the same time. Depending on personal preference, households varied in their choices.



*“People from Korogocho who manage to buy usually construct a six-room, iron-sheet plot. They live in two of the rooms and rent out the rest. Average purchase price of 300,000 KES – usually, they sell a portion of the land back in the village and use it to buy here.” – A land broker in Korogocho*

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*Esther, who has built a permanent stone house in Dondora, which neighbors Korogocho, currently isn't planning any further improvements because she is still paying off the loan from the initial construction of the house. If she had money, she would like to expand the living room or build another floor. She also might build another house to live in and just rent out the one in Dondora. She built the house to rent so that she would have some income to pay school fees.*

#### **6.2.4. The roles of men and women throughout the process**

Broadly speaking, most housing-related decisions were seen as jointly made by men and women in the household. **Men, however, tend to lead more decisions**, and when there was a disagreement, men would make the final decision. Important distinctions in decision-making also emerge between tasks or stages in home construction. Figure 13 on the next page is a summary of the involvement of men and women in housing decisions.<sup>10</sup>

##### **6.2.4.1. Decision to start building**

**There is a norm of women instigating the decision to start building**, either as a risk management measure (if the husband dies, the woman needs somewhere to go in case she is evicted) or because they desired a place of their own.



*“Women usually instigate the building process. Men may just go about ordinary life. Women are the ones who feel like they need a house.” – A woman from central Kenya*

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<sup>10</sup> This assumes a joint household where both man and woman are present and living in the same house. Situations where women are single or widowed are explored later in this report.

##### **6.2.4.2. Ownership of title/deed**

**Land is usually passed from parents to sons, with the land subdivided among male siblings.** This is generally accepted as the tradition by both men and women. This social norm makes building on their own much more challenging for women.

Families often did not have the title or deed document to their land. Researchers uncovered some instances of land coming under threat in urban and peri-urban areas (see section 6.2.2 for the earlier discussion on land brokers under Building Process). Without official legal documentation, homeowners face constant risk of eviction. If land development and construction continue in Siaya and other rural areas with devolution,<sup>11</sup> security of tenure in those areas also could be threatened.

##### **6.2.4.3. Financing**

Accumulating enough money to build a house requires bringing together money from multiple sources. Men and women use their own savings and/or borrow money from informal savings groups or microfinance institutes. The proportions that men and women contributed varied, but men generally provided more. Women, however, seemed more easily able to access financial assistance, with many participating in informal savings groups and many microfinance institutions such as Kenya Women Microfinance Bank specifically targeting women.

Where women provided none of the funds, spending decisions were likely to be led by men. Where women provided some of the funds, decisions were likely to be taken jointly by men and women.

##### **6.2.4.4. Material selection**

Men generally selected materials, although they may have consulted women beforehand on their preferences. Men are seen as more aware on the best materials to use and more able to negotiate prices and gauge quality. Men also are more mobile and less likely to work in or near the house, and so can visit more stores before deciding where to buy the products.

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<sup>11</sup> The decentralization process whereby counties have greater responsibility and funding to provide services to citizens – including provision of health care, pre-primary education, and maintenance of local roads – that were previously under the national government's mandate. For more information, see <http://ilakenya.org/understanding-the-devolution-architecture/>.



“My husband thought the price I was being quoted for the iron sheets for walls was too high, but when he went, he got the same price.” – **A woman from western Kenya**

**6.2.4.5. Design, layout and interior decoration**

Men tend to lead the design and layout of the home but often consult the women in these decisions, as women are perceived as spending more time within the house and having a larger role in managing and maintaining the house.

**For women, the layout was important, especially having clearly partitioned rooms,** with a sitting room for entertaining guests that was separate from the bedrooms, kitchen and dining room.



*Amina, who lives in a rented house in Korogocho with her family, states that her most desired improvement to her current house would be to have a proper sitting room for visitors. She also would like to have more storage in the children’s room and a place for the children to sit and do homework, as they now do homework on the floor.*



“Life is so much better here. We have more space — separate rooms for girls, boys, husband and guests. In Korogocho it was so squeezed; they were all in a small room with the children.”

– **A woman who has built in Chokaa**

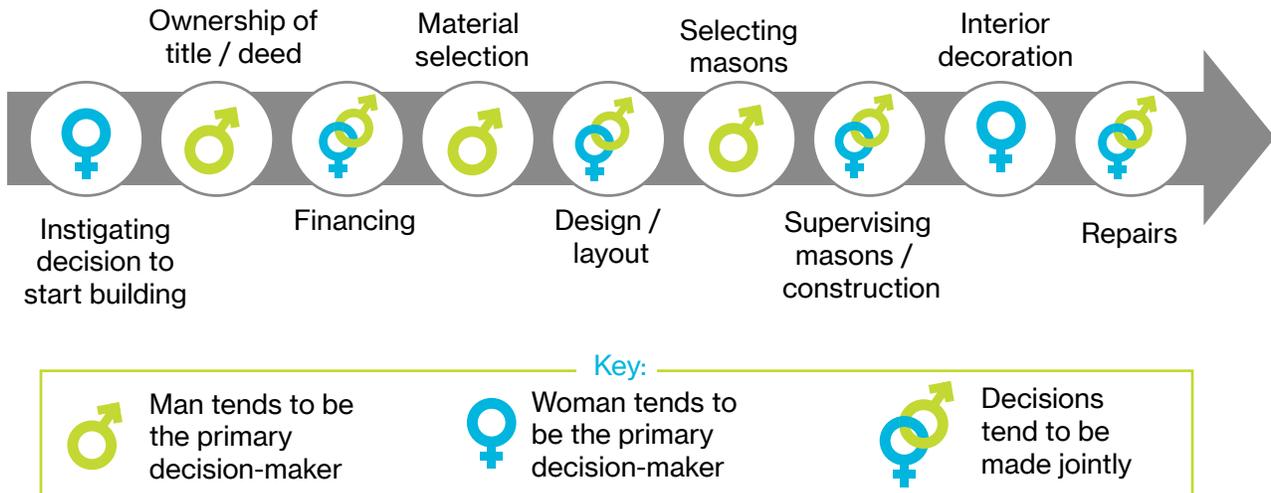
When a woman is building on her own or is in charge of the construction, *fundis* appeared to play a greater role in determining design and materials used, based on the client’s budget.



*A woman who owns a home in Siaya reports that she asked the fundis what kind of structure she could build with the money she’d saved, and they said a semipermanent with a thatched roof.*

**After giving input on the layout, women were most involved in interior design,** as decorating and setting up the kitchen are considered their domains. One hardware store in Nairobi reports that 15 percent of its customers are women. They generally buy ropes for the clotheslines, curtain rails, and paint (as they usually decide on the colors).

Figure 13: The roles of men and women by housing decision



#### 6.2.4.6. **Selecting fundis**

*Fundis* are generally selected by reaching out to family members or friends who are either *fundis* themselves or who have recently built. Households also will scout the neighborhood where they plan to build, find a house that they think looks nice, and ask the homeowner how to contact the *fundi* who did the work. Men generally performed this search for the same reasons that they usually select the materials (i.e.g, they are more mobile and thought to be more savvy in negotiation and more knowledgeable in detecting quality construction).

#### 6.2.4.7. **Supervising construction and repairs**

**Men clearly preferred to supervise construction, as they saw themselves as more knowledgeable about construction matters and did not want their wives interacting with male masons. However, husbands often were not available to supervise.** Women could more easily leave their jobs or homes to travel to the build site, especially if it is upcountry. This seems to be allowable as long as it is clear that the man has other obligations; if not, the sanction for breaking this social norm is community gossip.



*“I went [from Nairobi to supervise the construction] rather than my wife because I am more conversant with construction process, materials. The African culture doesn’t allow the woman to supervise the construction of the house if a man is around. This is particularly the view of the elders, and you want to respect the elders. If his wife were the one managing the process, the community will demean her and not respect the wife, because she is taking over the responsibilities of the house.”* – **A man who has built in Busia**

*“We used fundi from the village recommended by relatives. ... The wife managed the whole entire building process, because I was away. She bought materials, managed the fundi, all of that.”* – **A man who has built on family land in Muranga county**

#### 6.2.4.8. **Flexibility of gendered norms**

**Overall, norms around women’s involvement within housing decision-making are quite flexible** and depend on:

- a. Presence or absence of a spouse: If a woman is widowed or otherwise single, or if the man is away for work, the female head of household makes most or all of the decisions in terms of design, contracting and managing

the *fundi*, choosing the materials, and supervising the construction. Otherwise, women may face sanctions in the form of community gossip (e.g., that she is “sitting” on the husband). For female-headed households, there is a perception that *fundis* will build on credit in return for sex.



*Darlene, a 58-year-old woman, owns a small kiosk outside her house in Korogocho, selling household items such as sugar, flour and milk. She moved to Korogocho in the 1980s with her husband, who died in 2006. Although she owns her house, she is building another house in Kiambu County on the family land of her former husband because of the uncertainty around land rights in Korogocho. She has completed most of the structure except for the roof and the finishing, i.e., completing the ceilings, installing doors and windows, and plastering.*

*“Most important is to acknowledge that the man is not always there. I needed someone else to take charge when he was away.”* – **A woman who has built in Lucky Summer, on the outskirts of Nairobi**

- b. The money they bring into the household: The more women earn and contribute to the building project, the more involved they are in decision-making. In several instances, women who had saved much of the money needed to start construction went ahead and did so on their own, sometimes without even consulting the husband.



*“In Siaya, it’s usually men talking. But if you have a financial breakthrough, you can speak with a voice. In cases where the woman is earning and the man is unemployed, she can make decisions. Now the wife is selling tomatoes; now I cannot decide on my own.”* – **A man who has built in Siaya**

*“My wife contributed to the land purchase, so she was involved in the construction. She also was managing the shop back in Kibera and sending money for the construction. She went with me to the construction process. For example, during the construction she complained of the kitchen being too small; she wanted to have a big modern kitchen. She also encouraged me*

to do a borehole and to change the iron sheets on the roof, and also to put a toilet and bathroom inside, which is not common practice in the rural area.” – **A man who has built (with his wife) in Siaya**

The strongest norm limiting women’s involvement in housing decision-making was **the fear that the community might view the husband as being powerless** in the relationship. This did not seem to be prohibitive, however. In fact, it appeared to be rather flexible as a norm, with alternative stories or explanations for the woman’s involvement that the couple could present.



*A woman from western Kenya says that husbands usually make the decisions unless you’re a single mother. She is an exception in that her husband allows her to be involved. Still, they have to pretend to her mother-in-law that he makes all of the decisions; otherwise, it will be seen as if she is “sitting on him.”*

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*“If a woman has a husband and leads a construction, there will be some gossip that the woman has taken over her husband. ‘She is sitting on her husband.’... If a woman is too forceful and takes leadership on construction, a man might step back and not contribute resources.” – **A woman from western Kenya, who says that when her husband was working and she supervised the construction, she faced gossip but was not bothered.***

The most severe sanctions women faced were times when a single or divorced woman managed to build on her own in peri-urban areas, which generally requires substantial resources.



*“People in Korogocho started saying that I was a witch, that I am involved in devil worship, that that’s how I am making so much money from my business and am able to build a house. They question how I made enough money to build outside Korogocho. But for men they don’t question how they got the money to build.” – **A woman who built in Riuru***

Figure 14 on the next page summarizes some of the key norms influencing women’s roles within housing decision-making, as well as indication of the prevalence, strength and relevance of the norms to Change Objective 1.

### **6.3. CO2: Increase fundis’ practices that results in higher quality, faster and less costly construction for low-income homebuilders.**

Findings under Change Objective 2 are first presented terms of *fundis*’ mobility pathways. The following section details norms surrounding households’ selection of *fundis* and how *fundis* manage relationships with clients. The final section examines other influences and factors affecting *fundis*’ building practices.

#### **6.3.1. Mason classification and mobility pathways**

Although the terms “mason” and “fundi” are used throughout this document to describe construction workers, the study identified three broad categories of masons working in the market.

##### **Labor mason (*fundi*)**

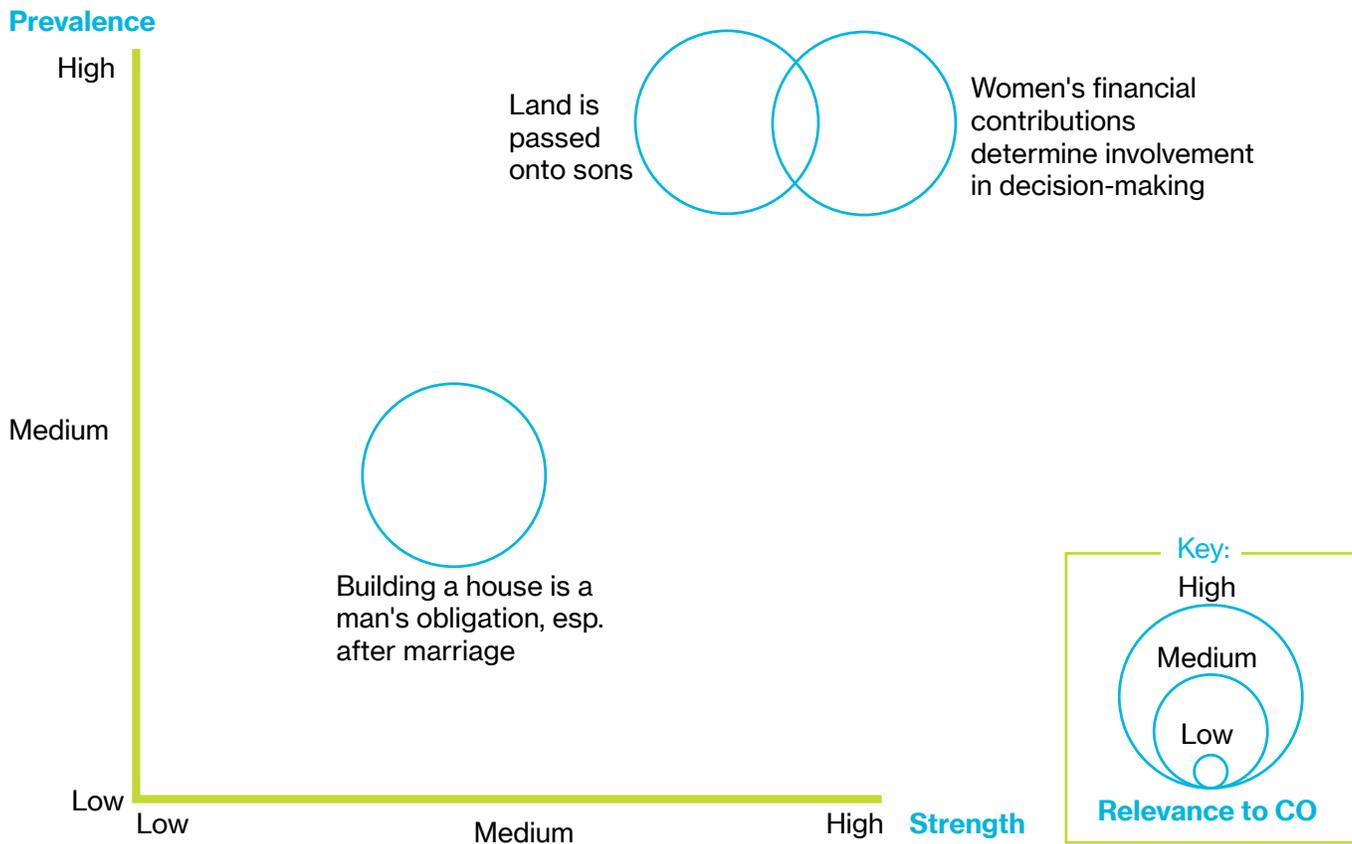
- A mason who can lead small projects (e.g., a semipermanent two- or three-room house) with or without other masons and can undertake repairs and work under a foreman on larger-scale projects such as a multistory house or building.
- Usually has one or two areas of expertise (e.g., finishing, masonry, painting) but is knowledgeable enough about other aspects of construction to undertake them for smaller projects.

Generally, low-income households use this type of mason to construct their homes. *Fundis* often take on multiple jobs without any written contract or clear time frame, as their clients may not be able to predict the flow of income that will finance the construction. Although the research team primarily interviewed labor masons, the outlined categorizations and career progression apply to other types of *fundis* (e.g., electricians, welders, etc.).

##### **Labor contractor/foreman**

- Has a team of at least five people, although he might not use all of them regularly. They may work as subcontractors under large contractors or builders. Contractors/foremen present themselves in the construction site where their presence is required most, not specifically limited to one location.
- Can take on construction of multistory buildings or bungalows, and almost always uses “permanent” materials such as stone and brick. Labor contractors are multiskilled (e.g., they may be knowledgeable and experienced in finishing, masonry, electrical wiring and plumbing) and therefore can monitor and check the work of those working under them.

Figure 14: Norms shaping women's involvement in housing decision-making



- Has access to and ability to raise working capital (in order to pay workers and suppliers even when a client has not paid), either through personal networks or from formal banks.
- Based on the needs of the client, the labor contractor/foreman may provide both labor and materials, or just one – typically labor, because most clients prefer to buy materials themselves.
- Usually has formal training or certification in construction from a polytechnic learning institute.
- May or may not have a registered company.

**Labor and material contractor/general contractor**

- Labor, material and general contractors usually own their own registered construction company and manage a larger team of between 15 and 30 people, some of whom are staff members while others are contract or seasonal workers with different specialties. They manage the work at the site by delegating through head/lead masons who will keep them updated on a daily basis.

- Has the ability to undertake more than two projects comfortably. They undertake independent projects and supply manpower to other builders or large contractors from their pool of people.
- Has reliable access to capital and the ability to undertake calculated risks. Their contracts usually include materials supply as well, and as such, they tend to have good relationships with materials manufacturers and suppliers.
- Regularly attends trainings and expos organized by construction companies and are up-to-date on the latest materials and technologies.

The general contractors interviewed had excellent communication skills and marketing strategies that included online platforms such as Facebook pages and websites.

Along with the types of masons described above, there are also junior helpers or apprentices who support the construction work by carrying out more menial work and hard labor.

Although the three different types of mason roles are presented distinctly, masons often perform different roles depending on what type of work is available, as described in Figure 15. For example, it is not uncommon for a mason who generally works as a labor contractor to also occasionally undertake simpler masonry work, under the supervision of another contractor.

**Masons generally come from low-income backgrounds**, and masonry/construction is widely seen as a profession for young people who do not have the financial means to go into higher education or even finish school. Although masonry is seen as tough, labor-intensive work, it is also **seen as an economically savvy career choice** because there is always demand for such work.

Masons usually start working at a young age, with the majority of masons leaving secondary school. They start working as apprentices, doing hard, physical labor, usually under the supervision of more experienced masons or contractors. **The main aspiration among masons is to become contractors**, since this is vastly more lucrative, allowing them to make margins on other masons' wages and on the cost of materials.

When masons start operating independently and taking on individual construction contracts, they usually start with households from within their communities, who are more likely to have lower incomes, and with referrals from other workers whom they've met on construction sites. These referrals are not concentrated to any particular geographic

area; it is common for masons to travel across the country for work obtained through referrals or connections.

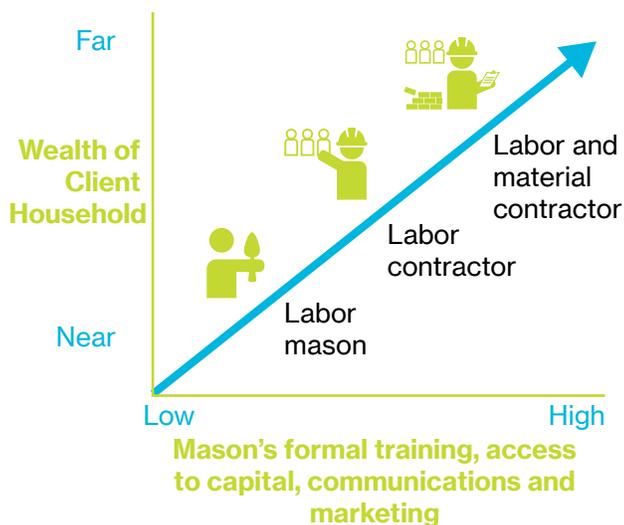
The progression from labor mason to general contractor can vary dramatically, depending on an individual's networks, communication skills, business aptitude, and learned skill across various aspects of construction.

Although all of the contractors interviewed had different career pathways, one common factor that seemed to help their advancement was developing their skills across various domains (rather than specializing in only one).

### Box 3: Antony, owner of Tile Pro Technologies

Antony started in construction four years ago as a casual worker, then upgraded to a fundi, then a few months later started getting his own contracts. For his first contract, he knew the owner of the property, an eight-unit flat. He then registered a company and started a website. Now he has 10 employees, some of whom he met while working as a casual laborer. Most of them are not educated, so it's hard for them to communicate with clients. If Antony is not there, there is no way for his employees to convince clients that they can do the job. He believes his communication skills and education are among the reasons he has progressed quickly within the industry compared with others.

Figure 15: Masons' mobility pathways



“Fundis would advance faster if they are multiskilled. Most are skilled in only one area. Especially to become a foreman, a fundi has to be multiskilled; they oversee all fundis and check the quality of their work. Most foremen therefore come from organizations that taught them various skills (e.g., National Youth Service) or were ‘naturally’ curious and proactive during their career.” – **A general contractor in Nairobi**

“Masons who are diversified in what they can do — welding, finishing, plumbing, electrical, etc. — will always have work.” – **A labor contractor in Nairobi**



*“Back when I started, knowing how to make stone was most important for a mason. But nowadays, masons have to do all tasks (plastering, setting the foundation). We always pick the most experienced person to do the setup on any construction project.” – A labor contractor in Siaya*

In addition to being multiskilled, **most (but not all) contractors interviewed had some kind of training and certification** from a technical institute or university. However, these credentials were useful only to prove to potential clients – especially institutional ones rather than individuals and low-income homebuilders – that the contractors knew what they were doing. Almost all contractors agreed that most training programs were not hands-on and did not provide practical experience or knowledge.

#### **Box 4: Julius Ochieng, director of Kowango Construction in Siaya**

Julius doesn't hire graduates of technical institutes. The graduates are too theoretical – “half-baked.” He often gets requests for attachments (apprenticeships as part of the technical training program), but from individual students, not the institutions. He prefers to take unskilled workers and train them. Unskilled workers start at 300 or 400 KES per day and do everything – all aspects of masonry, finishing, etc. The time frame to “graduate” to skilled worker depends on the student. It can take between six months and two years. Skilled workers get paid between 900 and 1,200 KES per day. After one or two years, skilled workers usually leave and start taking contracts on their own. Half of the contractors in Siaya town have been trained at Kowango Construction.

Contractors had significantly more, and more diverse, information flows than labor masons, in terms of:

- New materials, technologies and construction practices: Contractors stayed up to date on trends by attending trainings and product demonstration events organized by materials manufacturers. Clients expect contractors to know the latest innovations in these domains and not just use old methods. These manufacturers – and the hardware stores that stock their products – are therefore highly influential on

#### **Box 5: Barack Orem, head of the Building and Civil Engineering Department at the Siaya Institute of Technology (SITT)**

The Building and Civil Engineering Department has 300 students, enrolled in both diploma and certificate courses in civil engineering (construction of roads, dams, buildings), building technology and land surveying. Many students come from humble backgrounds. Some pay for their own fees. SITT has different fees for students who stay in residence (70,000 KES per year) and day scholars (18,000 KES per term). Many students get bursaries meant for technical and vocational education and training institutions. County governments and some NGOs also give bursaries.

Many students in the building courses were already working as masons – maybe about 30 percent – but realized they needed proper certification to progress in their careers. Many were doing small-time construction work before enrollment (e.g., residential houses, business premises, etc.), but after graduation, some were able to be employed by the county government. Many masons start on small projects such as residential houses or business premises. Approximately half of graduates stay in Siaya county, with others going to urban areas or being spread out across Kenya.

Currently, the Kenya Institute of Curriculum Development prepares all of SITT's curricula, but the school is developing a new curriculum that is more responsive to the industry's needs. SITT aims to ensure that graduates don't need to be retrained by companies; there have been complaints that SITT graduates are not exposed to fundamental tasks of building construction. According to Orem, graduates go to a construction site and are told to put their certificates aside. Companies will then subject them to a practical test such as plastering a ceiling. SITT plans to incorporate competence-based training, as current curriculum emphasizes theory too strongly. Attaining certificates is still valuable because of a mentality that “the more certificates you have, the better.” Contracts typically require professional certification; for more technical professions, the trend is shifting toward desiring workers with real skills.

contractors' decisions. They also exert some influence on labor masons, but as these masons are generally working with smaller budgets, they tend to choose the cheapest products. Two contractors said they also find new design ideas and technology through the Internet.



*"Manufacturing companies call me through the hardware stores to inform about trainings or new products. When we buy paint through a hardware store, we fill out a form with our contact information. We get a lot of information from the hardware store; they provide advice on which product might be right for the job."*

– A general contractor in Nairobi

*"Sometimes I find out about better products from the brochures that manufacturers bring to the sites, or sometimes from hardware stores. But down here, price element is very important, so I'll need to look at that before making any decisions."*

– A contractor in Siaya

- Marketing channels: Almost all of the contractors interviewed said clients often found them through their company's website or Facebook page or the iBuild online platform.<sup>12</sup> In contrast, labor masons depended entirely on word-of-mouth referrals, limiting them to a much smaller potential client network.



*"Some jobs are from general contractors who are managing the overall construction. Others are through the website or through Facebook. I receive a lot of calls, especially through the Facebook page. IBuild also found me online and encouraged me to join the platform. ... In terms of design, I use Google to seek out new design ideas. We also go to showrooms. Ceramic Tiles Marketing also offers trainings; I buy all my clients' materials from them. Other companies don't offer this. I prefer to be paid in a lump sum by the client so I can buy the materials because I know CTM. ... I can bargain with them and keep the extra money."* – A general contractor in Nairobi

<sup>12</sup> It is important to note that most of the contractors interviewed were identified through Habitat Kenya's partner iBuild. Unsurprisingly, most of these stated that iBuild was a key source of business for them, but this may not be representative of most contractors in Kenya.

Larger-scale contractors were able to speak clearly about what differentiates them from their competitors, but labor masons saw little difference between themselves and their competitors in terms of skill, reliability, customer service or other areas. When probed, they said that clients found them based on referrals, but they struggled to identify reasons why they would have been chosen over other referrals.



*"Many fundis have the same skills, but those with certificates get paid more for their work. With individual clients, work is through who you know. With contractors, tribal dynamics have a role; a contractor will likely source from his own tribe."*

– A mason in Githaguru

Information is critical to a mason's career advancement. Those who have some level of vision and idea of their pathway are more likely to do higher-quality work because they know their reputation depends on this.

The remainder of this section focuses on norms and practices among labor masons, because they are the primary service providers to low-income homebuilders. Where relevant, norms among larger-scale contractors also are mentioned.

#### Box 6: Andrew, apprentice mason in Siaya with Kwangu Building & Construction Company

Initially, Andrew was studying mechanical engineering but didn't have money to continue paying for courses. He was walking around one day and saw people building, so he asked for a job. He hopes to be a contractor one day so that he can build houses. He knows this will take time and that he has to train first to learn how to manage several different pieces of work (several walls, a door, several rooms) within an allotted time and how to do finishing properly. He wants to be detail-oriented. He hopes to become a "full" *fundi* in seven months and a contractor in a few years.

#### 6.3.2. Low-income homebuilders' selection of masons

**When building either in an urban or upcountry area, builders tended to use materials and a *fundi* (usually referred by a relative or friend) sourced from that area rather than from the neighborhood they lived in before building. This was both**

to save costs on transporting materials and to recruit masons familiar with the designs of homes in the neighborhood.



*Darlene brought a fundi from Korogocho to build the house in Kiambu that she is currently constructing. She got the referral for the fundi from her brother who has worked with the fundi before (her brother is also a fundi.).*

**Norms around choosing masons in urban areas are based on aesthetics, rather than durability.** When not using a relative or friend, homebuilders usually scouted the neighborhood where they planned to build. Once they saw a house that they thought looked nice, they asked the homeowner how to contact the mason who did the work. Durability and quality of work did not seem to be an important part of the selection process, perhaps because of **an asymmetry of information, i.e., homebuilders did not always know how to recognize good quality construction.** This asymmetry has deep consequences on masons' incentives. Since households are primarily concerned with the finishing of the house, **masons have few incentives to improve their skills in other areas.** The referral system compounds this phenomenon, as it is based on relatively superficial elements such as finishing, aesthetics, and layout, rather than durability.

### 6.3.3. Masons' client relationship management

Masons generally buy materials, use methods, and follow the design and vision dictated by clients (female clients are an exception, as discussed earlier). Few *fundis* encourage their clients to use better methods or materials. **Paid on a daily wage, there is little incentive aside from reputation for them to care about quality of construction.** And while masons recognize that reputation is important, this reputation seems to depend as much – if not more – on whether they followed the client's instructions and completed the work on time and within budget as it does on the quality of the work itself. Reputation also seems to depend on finishing and how a house looks rather than on durability and quality of construction.

As masons progressed in their careers, they seemed to become stricter on the quality and standards of materials they preferred to work with. In addition, there were many instances of clients not knowing exactly what they wanted and relying on the masons for advice.



*“Sometimes clients have no idea of work that needs to be done, so I do the design/sketch. Sometimes they have an idea on what they want, so I only advise — what can be done, what can't be done — and they mostly follow the advice. For example, there was one client whose structure was old and who did not have enough resources for an entire overhaul, so I advised them to build a strong pillar over the existing structure rather than demolish the entire structure. ... Sometimes clients make requests I can't agree with and cannot be convinced otherwise. If I feel I cannot deliver on the work, I would just tell the client to get another fundi.”* – **A mason in Korogocho**

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*“There is a difference in quality of masons. Good masons will advise in terms of different materials. People might not use good masons because they are strict on materials that you have to use and [the overall project becomes] more expensive.”*  
– **A homeowner in Lucky Summer**

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*“Masons usually insist on quality products since they want to do a quality job to market themselves and stay in business. As such, those will be considered good fundis by the type and quality of work they do.”* – **A hardware store in Siaya**

It is important to note that there is **distrust** between:

- a. **Masons and clients:** Each party fears that the other will cheat them (e.g., masons overcharging for materials or not showing up for a job; clients abruptly stopping work or withholding payment).
  - Homebuilders mitigate the risk by doing “due diligence” – looking at other structures the mason has built or asking for referrals from trusted sources. They also usually insist on buying the materials themselves directly from hardware stores, rather than allowing the mason to buy them.
  - *Fundis* mitigate the risk by taking on multiple jobs at the same time. **The norm among low-income homebuilders (except for those in Siaya who sometimes constructed in a few days) of building incrementally seems to deter masons' loyalty and reliability.** Without knowing precisely when or how long their work would last, some masons tried to either drag out the work or look for multiple jobs at the same time. If all or several projects

came through, then they would outsource jobs to another mason. Masons seemed less likely to do this when they had a fixed-term contract or agreement and were paid up-front (e.g., for a multistory construction project).<sup>13</sup>

- b. **Masons working on the same team on a certain project:** There were reports of masons – even those working on the same project – trying to undercut each other on price and “win” the client away from the main mason or foreman.



“People undercut each other mostly on price. If a fundi sees you on site, after you have left the site he will contact the client and offer his services for a lesser amount.”

– A mason in Korogocho

**Clients see errors in construction as inevitable and rarely complain.** Households keep a close watch on masons while they worked on the construction site, but there is little feedback to masons after the house has been constructed, in particular with respect to structural and stability issues. There is a mindset among households that once they’ve paid, it is too late to expect masons to return to fix any errors in work, or as one homebuilder put it: “once bought, can’t be returned.” This broken feedback loop results in masons rarely being aware that the work that they have delivered is not up to standard and that they could improve.

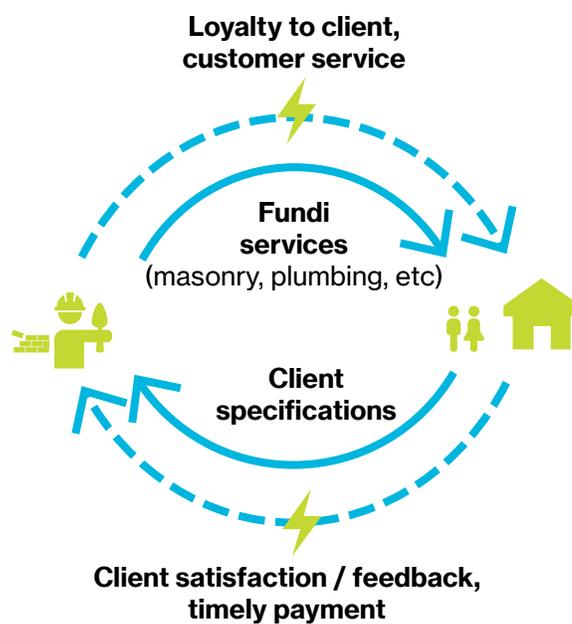
Figure 16 depicts some of the key dynamics that influence mason-client relations. The lightning bolts indicate flows or services that are dysfunctional, resulting in broken feedback loops that deter healthy and lasting relations.

#### 6.3.4. Influences on masons

In general, the *fundis* who could recommend new materials and methods worked on a wider range of projects, including larger-scale constructions, both for commercial buildings and rental units. Further, *fundis* who worked in both urban and rural areas played an important role in bringing innovations upcountry from the urban areas. However, masons in rural areas did not necessarily aspire to work in urban areas, and vice versa. Urban areas have a lot of construction activity, but the supply of masons is also higher, and competition for jobs is therefore

<sup>13</sup> It’s rare that a labor mason would be the main contractor or foreman on such a project, but they could be part of the team of *fundis*.

Figure 16: Broken feedback loop between masons and homebuilders



greater. In rural areas, especially with devolution, there also seems to be much construction activity, and masons already established in the area will have many opportunities.



“In 2017, I used building molds for constructing foundations. I learned about it on a building site, and liked it a lot because installing it consumed less cement compared to the usual foundation construction. I recommended it to a client, who used it too.” – A mason in Kisumondogo

“In Busia, people there are not very familiar with interlocking bricks. In 2016, I advised a client there to use them but first had to demonstrate how it worked. Clients usually ask for samples/ demonstrations first. So I built a bathroom using those bricks, and then built the house using that.” – A mason in Highridge

Hardware retailers also appear to moderately influence masons and structure owners’ choices at different stages in the homebuilding process. Retailers themselves are influenced by distributors who act as intermediaries between them and manufacturers.

### Box 7: Mini case study of Wachiko Hardware

Wachiko Hardware is widely regarded as the cheapest and therefore most popular store in Kariobangi, an area well-known for its hardware supply stores. Customers come to this area from across Nairobi. Established seven years ago, the store in Kariobangi has three employees, including the manager. The store has four branches in total, all in Nairobi.

Wachiko Hardware's customers include both homeowners/builders and *fundis*. According to the manager, owners tend to come at the start of a project but then send the *fundi* once they start trusting them. Local customers (in the neighborhood) are mostly building structures to rent out to tenants whereas in surrounding higher-income neighborhoods (e.g., Boroboro, Kasarani) people are generally building houses to live in themselves. He estimates that about 15 percent of customers are women, who generally buy ropes for the clotheslines, curtain rails and paint (as they usually decide on the colors). He has two or three female customers who are building a house themselves.

Their most popular products are cement and iron sheets, which are used both for new structures and for repairs. Wachiko specializes in materials needed for the start of the building process, but also collaborates with other stores in the area that specialize in paint, tile, etc. If a customer needs something that Wachiko doesn't have, Wachiko is able to call one of the other stores. Wachiko's main competitor is Stewam Enterprises just down the street, which also has low prices and a large stock.

When asked, the manager advises clients on different types and brands of roofing sheets, cement and paint. Typically, customers go with the cheapest option. There are a few products that the manager thinks are great but people don't buy, such as plastic gutters that are more expensive but also more durable than metal ones (which erode over time). Wachiko also sells water tanks, but people usually rely on connection from the city or county council.

Similarly, Wachiko's manager knows a few *fundis* who are innovative and encourage their customers to use better materials, but they tend to work outside of Korogocho.

He thinks this tendency depends on their training but also on an innate desire to build projects of higher quality. He estimates that likely only 10 percent of *fundis* have this attitude.

Wachiko's stock is based on demand, i.e., the fastest-moving products. This stock is typically cement, nails, mabati (iron sheets) and plumbing accessories. Wachiko does not deal directly with manufacturers. Instead, it buys from distributors who in turn buy in bulk from manufacturers. These distributors then repackage the product into smaller quantities, which are then passed on to retailers. Wachiko's manager knows of only one manufacturer that does outreach directly to retailers: Henkel. When Henkel has new products, it comes directly to retailers to give demonstrations and offer promotional pricing.

Wachiko's manager believes many clients buy from the store even when building upcountry, because its items are cheaper and more reliable in terms of stock than what can be found upcountry. Wachiko has thought about opening a store upcountry but has no immediate plans to do so because it is currently understaffed.

Figure 17 on the next page depicts norms among labor masons that influence the quality and durability of the homes they build for low-income households.

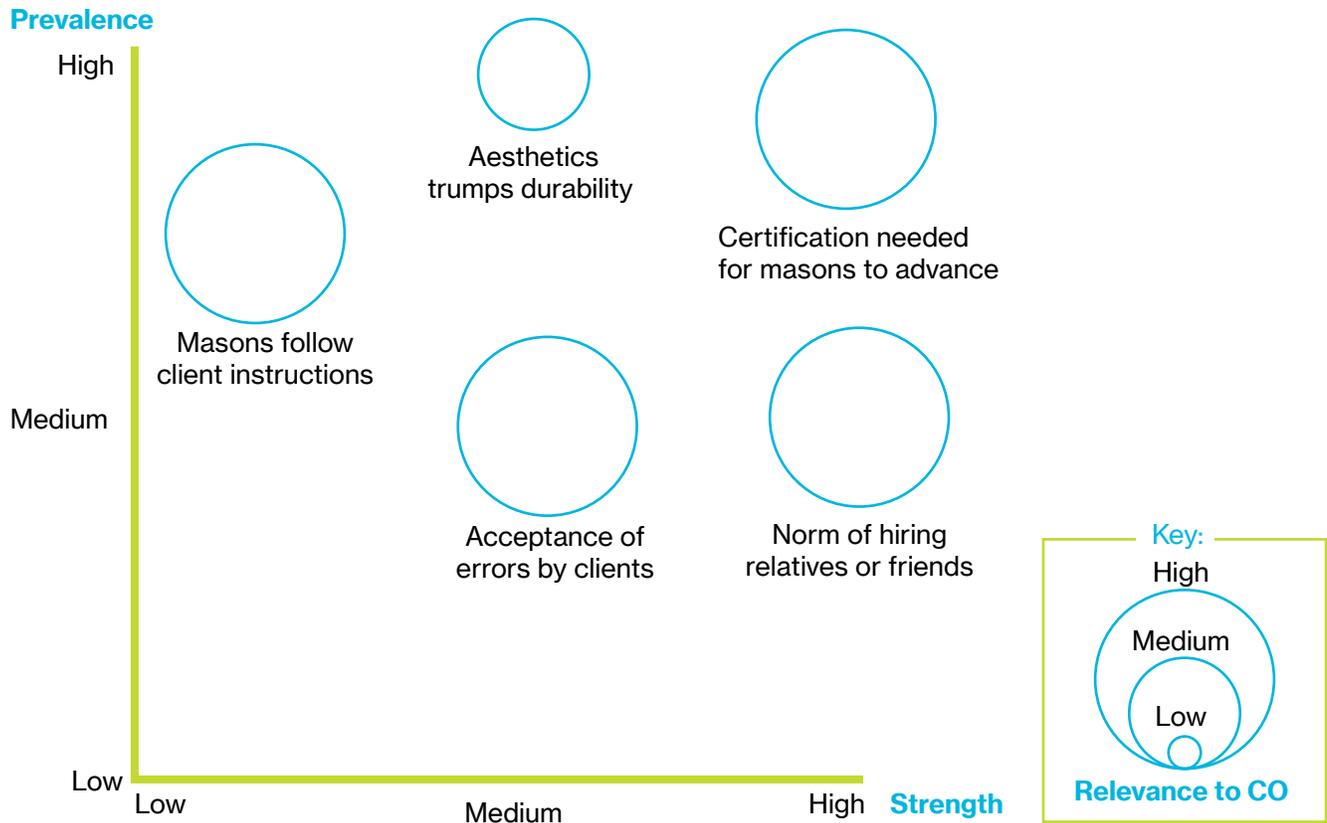
#### 6.4. Outstanding questions

This research uncovered a number of unanswered questions, including:

1. What are the drivers for home construction in other areas of Kenya (aside from post-election violence)? How do gender norms within building decision-making differ in these other areas/communities?
2. What impacts will devolution have on land tenure (e.g., within Siaya county)? Most residents do not have land titles or deeds, which has not posed a problem thus far because the land has not been under threat. There may, however, be more pressure on land as the devolution process continues.
3. How can technical training institutes have a more regular dialogue with industry and implement needed changes (e.g., moving to competency-based assessment) faster?

4. Are there ways to improve the effectiveness of apprenticeships, both from the perspective of learning for apprentices and generating value for the industry? Is there a way to position apprentices as helping to solve real business challenges? What are the different subcategories of fundis (labor masons)? What are their characteristics, backgrounds, motivations and needs?

Figure 17: Norms shaping labor masons' practices with low-income homebuilders



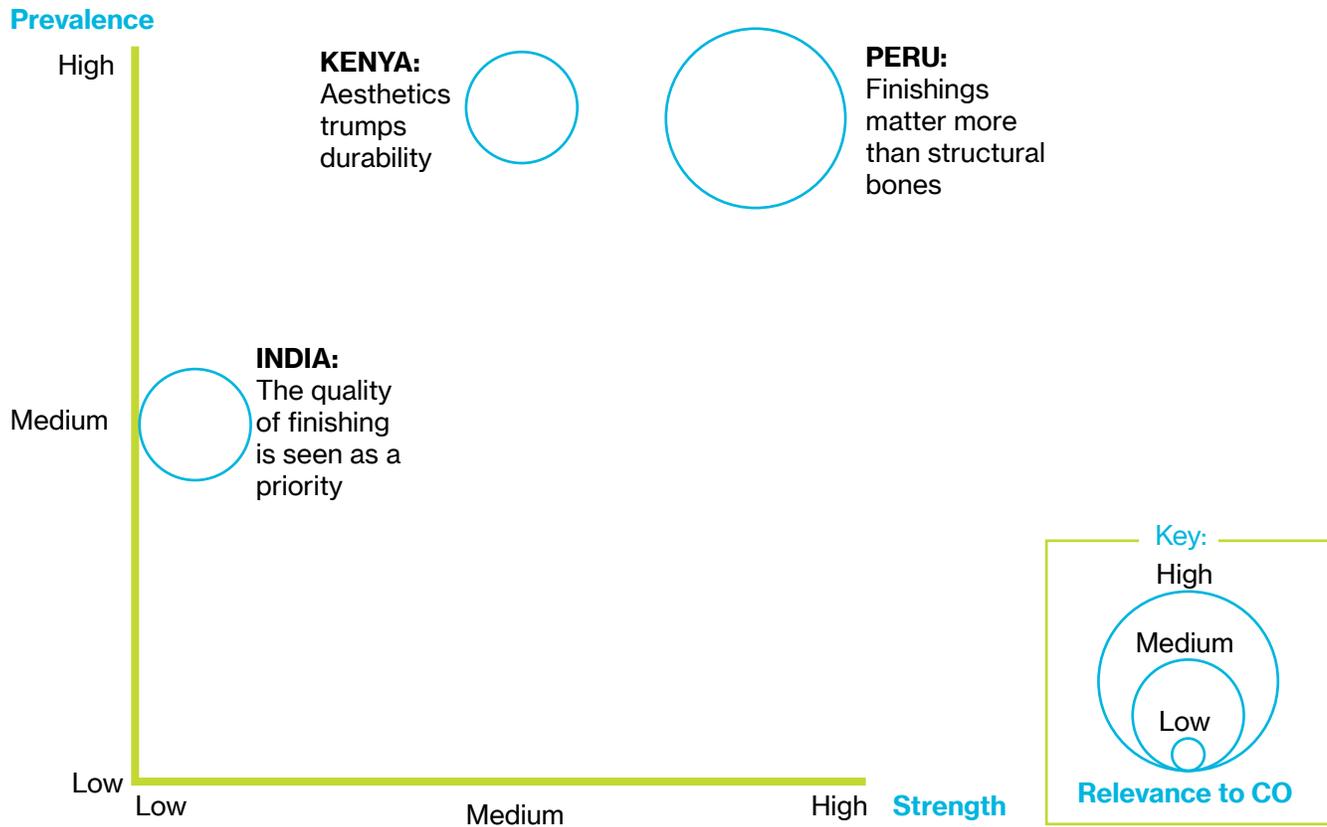


# Making sense of the research

This study has attempted to strike a balance between broad-based, formative research and narrow, product- or service-specific research on the norms driving decision-making in the low-income housing market. As such, it holds potential to serve multiple purposes:

1. It allows practitioners to have a deeper understanding of the factors that drive the decisions that low-income households make regarding home construction. For example, seemingly irrational decisions such as the choice to invest in appearances at the cost of durability make sense when one understands the norms prioritizing the quality of finishing and the inevitability of construction failures.
2. It identifies major roadblocks to systemic change in the low-income housing market that would otherwise be invisible to practitioners who default to interventions for material constraints – training for masons who lack adequate skills – without taking into account the unwritten norms that will derail the intervention, such as “on-the-job training is the only way to learn.”
3. Firms and market actors with housing solutions that can improve the low-income homebuilding process will be able to better devise marketing and distribution plans that take these invisible networks and unwritten rules into account. For example, a firm with a new construction material that benefits low-income households could more effectively target first-level influencers like masons with a marketing campaign that shows benefits to masons and the households they are advising – a win-win situation for the mason.
4. It helps change-makers determine whether a specific norm is susceptible to change through direct intervention or whether it represents an immovable mental roadblock that must be worked around. This will determine the strategy for future programming. An example is given in Figure 18 on the next page, where the strength and prevalence of the same norm affecting durability of home construction in India, Kenya and Peru is compared. Because the norm is not as strong or prevalent in India, a light touch messaging intervention to prioritize safety, which directly targets the norm, could hold promise

Figure 18: Comparing norms around home durability



of improving durability. In Kenya, where the norm is somewhat stronger and more prevalent, a more intensive intervention that rewards durable techniques and practices to facilitate recognition of durability might be necessary. And in Peru, where the strength and durability of this norm is high, a disruptive approach that works “around” the norm by subsidizing a durable product that also looks “nice” may be necessary to ensure adoption by households and improve durability of home construction.

needs of low-income households. Products and services that fail to incorporate people’s input in their design are destined to fail. Because human centered design is rooted in empathy and requires a thorough understanding of our end-users’ behaviors, the team has found the combination of human-centered design and social norms research that identifies underlying reasons for users’ decisions being fruitful. This application of human-centered design in the affordable housing space is certainly novel, and our team’s use of this approach may represent a first for the sector globally.

One of the most practical applications of this research is incorporating these findings into a human-centered design process for intervention design. The Terwilliger Center strives to introduce housing solutions in the market that respond to the

Following this research in Kenya and building on the findings described in this report, a human-centered design workshop was facilitated to design draft intervention concepts for quick field validation.

The study identified a number of interventions for the Terwilliger Center to refine and test:

	Vision for change	Intermediate outcomes	What interventions can be taken to achieve these changes?
MATERIALS	Increased demand for alternative building materials and technologies, or ABMT, by low-income households.	Improved perception of ABMT by low-income households.	Nyumba Shape Up: An interactive TV program supported by an SMS campaign that demonstrates how ABMTs are durable and suitable for all social classes.
	Improved supply of affordable ABMTs to low-income households.	<i>Fundis</i> adopt ABMTs in their practices.	Work with ABMT firms to train <i>fundis</i> on using ABMTs.
		Retailers stock ABMTs.	Work with ABMT firms to develop appropriate distribution channels.
FINANCE	Improved last-mile distribution of construction materials to rural and peri-urban areas.	Retailers adopt new sales and distribution channels for construction materials.	Pilot agent-based/online supermarket last-mile distribution model with existing (hardware) retailers, allowing stores to access online catalogues of products and services. Sales agents will aggregate orders from individuals, <i>chamas</i> /savings groups, and larger communities to facilitate distribution.
		Retailers adopt technology (e.g., CRM systems, inventory management system) for improved distribution of construction materials.	
FINANCE	Improved access to financial services for homebuilding by low-income households.	Financial service providers, or FSPs, develop dedicated products and services for low-income homebuilders, including supporting incremental savings for homebuilding.	Support financial service providers, or FSPs, to develop financial products for savings toward homebuilding. Support FSPs to develop financial products aimed at different stages of the homebuilding lifecycle (e.g., starter pack for newly married couples, microinsurance products, etc.). Support FSP efforts to leverage hardware retailers as a delivery channel for credit. Amplify good practices around women's engagement for finance and homebuilding.
		Increased saving by low-income households to support homebuilding.	Consumer education to encourage saving discipline and incremental saving practices.
MASON PRACTICES	Professionalization of <i>fundis</i> .	Industry adopts standards that recognize and reward <i>fundis</i> ' competencies rather than formal certifications.	Work with accreditation agencies to develop and adopt industry-relevant standards that recognize both formal and informal (on-the-job) training. Work with vocational training institutions and private-sector actors to implement a standards certification program. Develop consumer education and <i>fundi</i> sensitization programs.
	Increased trust between <i>fundis</i> and households.	Strengthened digital rating and referral platforms to select <i>fundis</i> .	Work with <i>fundi</i> aggregating platforms to improve referral and rating systems linked to regulators. Support relevant government agencies to develop a contractor and <i>fundi</i> registry for easy access by consumers and <i>fundi</i> aggregators (for example, make a search accessible via USSD or SMS).
		Increased income and home-ownership for low-income <i>fundis</i> .	Increased access to potential customers for <i>fundis</i> .
		Increased access to finance for <i>fundis</i> .	Work with <i>fundi</i> aggregators to grow the female user base (specifically homebuilders).

This report was developed by MarketShare Associates for Habitat for Humanity's Terwilliger Center for Innovation in Shelter by Raksha Vasudevan and reviewed by Adriano Scarampi and Julia Lipowiecka of MarketShare Associates and Jane Otima, George Mugweru, Juliet Achieng, Edna Riechi, Scott Merrill and Sheldon Yoder of Habitat for Humanity. In addition, the Terwilliger Center country personnel and consultants in Kenya dedicated themselves wholeheartedly to carrying out the research summarized in this report.



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### **About Habitat for Humanity's Terwilliger Center for Innovation in Shelter**

The Terwilliger Center for Innovation in Shelter, a unit of Habitat for Humanity, works with housing market systems by supporting local firms and expanding innovative and client-responsive services, products and financing so that households can improve their shelter more effectively and efficiently. The ultimate goal of the Terwilliger Center's market systems program is to make housing markets work more effectively for people in need of decent, affordable shelter, thereby improving the quality of life for low-income households.

To learn more, visit [habitat.org/tcis](http://habitat.org/tcis).



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