Preparing for the Worst:
How Low-Income Household and Mason Attitudes on Home Construction Affect Disaster Resilience

July 2019
Research Study in Peru, Kenya, India

- How do key actors (women and men in households as well as masons and hardware shopkeepers) make decisions about housing & construction practices?
- Who influences them significantly in these decisions?
- What social norms (beliefs & behaviors) influence these decisions?
Housing Market System

What aspirations drive decision making?

How does information flow to households?
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**Key messages**

1. **External appearance dominates household decision-making,** leaving little room for disaster-resilient building practices. For masons, appearances also matter more than good disaster resilience, because this is in part how they attract new clients and business.

2. **The cost of materials and risk aversion on the part of households toward adopting an untested product or building method are significant constraints on the adoption of disaster-resilient practices.**

3. **Households’ access to information flows about disaster-resilient materials and methods is limited in both the India and Peru study sites, with family and friends providing the main source of advice.**

4. **A fatalistic attitude to both poor-quality housing construction and vulnerability to damage from natural disasters is common in both the India and Peru study sites.**

5. **Environmental factors related to safety and security still influence building practices among low-income households, even in locations that are not highly disaster-prone, such as the Kenya study site.**

6. **Educational campaigns on disaster-resilient housing, aimed at both households and masons, present a potential area of intervention, but they must be able to reach communities directly.**

7. **Incorrect use of materials and inadequate application of construction techniques are the main reasons why homes are not disaster resilient, rather than a lack of access to quality materials. Changing this requires a focus on behavior change, on the part of both households and masons.**

8. **Focusing solely on capacity building and knowledge transfer will be insufficient for this purpose, as it targets only the household domain of the social norms framework, leaving the social, governance and material domains untouched.**
Figure 1: Research methods

Kenya:

- 73 interviews:
  - Women and men in low-income households
  - Masons and other key influencers (such as hardware retailers, polytechnic institutes, savings groups, etc)
  - Households assumed to be earning less than US$10 per day (Terwilliger Center target household group)

India:

- 76 interviews and 10 focus groups:
  - Women and men in low-income households
  - Masons
  - Other key influencers: local retailers, associations, training centers and government officials

Peru:

- 30 interviews and 5 focus groups:
  - Desk reviews
  - Women and men in low-income households
  - Masons
  - Other key influencers: local hardware retailers, professional construction contractors, local leaders and government officials
  - Observational site visits to hardware stores and a prefabricated home market
• India
  – Lower income: INR 100k – INR 200k per year ($1,500-$3,000)
  – Higher income: INR 200k – INR 300k per year ($3,000-$4,500)

• Kenya
  – Lower income: semi-permanent structures, irregular jobs (e.g. clothes washing, ‘odd’ jobs) or in agricultural production
  – Higher income: more permanent structures, running profitable micro-enterprise or wage-paying job, sometimes receiving financial support from relatives

• Peru
  – Lower income: Vivienda de tipo C
  – Higher income: Vivienda de tipo B
Value Network Analysis and Decision-Making India
Value Network Analysis and Decision-Making Kenya
Who Influences Low-Income Housing Decisions? India

<table>
<thead>
<tr>
<th>Category</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership of housing title</td>
<td></td>
<td></td>
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<tr>
<td>Spending money</td>
<td></td>
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<tr>
<td>Sources of housing finance</td>
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<tr>
<td>Types of material</td>
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<tr>
<td>Hiring workers</td>
<td></td>
<td></td>
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<tr>
<td>House layout</td>
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### Who Influences Low-Income Housing Decisions? Kenya

<table>
<thead>
<tr>
<th>Task</th>
<th>Kenya</th>
<th>Peru</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instigating decision to start building</td>
<td>♂</td>
<td>♂</td>
</tr>
<tr>
<td>Ownership of title / deed</td>
<td>♂</td>
<td>♂</td>
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<tr>
<td>Financing</td>
<td>♂</td>
<td>♂</td>
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<tr>
<td>Material selection</td>
<td>♂</td>
<td>♂</td>
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<tr>
<td>Design / layout</td>
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<td>♂</td>
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<tr>
<td>Interior decoration</td>
<td>♂</td>
<td>♂</td>
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<tr>
<td>Selecting masons</td>
<td>♂</td>
<td>♂</td>
</tr>
<tr>
<td>Supervising masons / construction</td>
<td>♂</td>
<td>♂</td>
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<tr>
<td>Repairs</td>
<td>♂</td>
<td>♂</td>
</tr>
</tbody>
</table>

- Predominantly women
- Predominantly men
- Joint / highly variable across household
Norm: Low income homebuilders expect risks and see disasters as inevitable.
Norm: Finishings matter more than structural bones for low income

“One of the problems is that many people look only at the finish and not the work that has been done inside.”

Mason mini-FGD in Kullukadaimedu, India
Norm: Defects and construction failures are inevitable for low income
Norm: Saving face is more important than sincerity between masons and clients.
Norm: Masons are unwilling to accept knowledge gaps

“Masons in general don’t like to be told how to do their work, they will stop working if there were questions asked or suggestions given – 2 or 3 masons had left like that.” Mr Dayalan, household located in Kancheepuram, India
1. Disasters are seen as an inevitable occurrence
2. Vastu influences decisions
3. The quality of finishing is seen as a priority
4. Defects and construction failures are seen as inevitable

Key:
- High
- Medium
- Low

Relevance to CO
Executive Summary of Report

• [https://www.habitat.org/sites/default/files/documents/TCIS_Social%20Norms_Exec%20Summary%20Final_0.pdf](https://www.habitat.org/sites/default/files/documents/TCIS_Social%20Norms_Exec%20Summary%20Final_0.pdf)

Briefing notes specifically focused on gender, disaster resilience, and construction labor are being prepared!