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Housing Microfinance:
Designing a Product for the Rural Poor

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Abstract

Improving housing conditions for the poor is important not only from a standpoint of fundamental human rights, but also for maintaining hygienic and dignified living conditions. There is growing evidence that demonstrates that improving these amenities may also promote productivity, ultimately leading to greater economic development. However, a large shelterless population continues to exist across India. The rural and urban poor face variety of constraints when transforming their houses from poor or semi-permanent materials to permanent structures. This paper discusses the potential of providing housing finance to the poor through microfinance institutions (MFIs) and issues that are likely to arise in doing so. Using a demand assessment conducted at Ankuram Sangamam Porum (ASP) in Andhra Pradesh, the paper demonstrates how an MFI can develop a housing microfinance product based on their clients' socioeconomic status and demand for the product.

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1. Introduction

Housing has long been regarded as a fundamental human right[1]. More recently, it has been employed as a key indicator of quality of living amongst the poor.[2] Maintaining hygienic and dignified living conditions remains a challenge for the poor the world over. It is felt most acutely in the informal housing settlements of developing countries. Specifically, huts and other semi-permanent housing often lack the infrastructure to provide running water, sewage removal and numerous other amenities that link closely with elementary health and sanitation. There has even been speculation that improving these amenities may also promote productivity, ultimately leading to economic development.[3] Additionally, the creation of housing stock catalyses growth in employment, local investment, and has the potential to open markets between the poor and material suppliers.

While a large shelterless population exists across India,[4] considerable constraints in developing appropriate shelter for the poor hamper broad, scaleable initiatives for the creation of housing. Rural housing for the poor, for example, suffers from lack of access to sustainable materials and linkages with existing infrastructure. These elements bear heavily on structures composed of mud, thatch, stones and other low-cost, readily available materials. Additionally, the time it takes to repair 'housing emergencies' often leads to debt or lost wages. The housing problem in rural villages is further exacerbated by the unsteady income of the villagers, who are often field labourers in areas where crop yields are vulnerable to foul weather and drought. Meanwhile the urban context is characterized by the undue burden of density, magnifying the effects of infectious diseases and poor sanitation. Similarly, the informal income of urban households prohibits access to housing finance to improve their current housing situation.

In order to bring down the barrier of access to finance for rural and poor households, microfinance has already been introduced to populations living in substandard housing, offering access to credit that would not otherwise be readily available to them. Because most loans

[1] In India, a common Hindi saying is '*roti, kapda, aur makaan*' which translates to 'bread, clothes, and house,' representing the items essential for human survival and dignity.
[2] The Microfinance Campaign uses the CASHPOR House Index as a standard measure of poverty. By simply looking at the physical structure of a house and evaluating the materials and construction, field workers can quickly and systematically identify the 'poorest of the poor.'
[3] Basu, Kanika. 'Housing Microfinance: Issues and Constraints.' *Shelter* Vol. VII, No. 1 (January 2004): 110–113.
[4] National Building Organization estimated the shelterless population in India to be 4.48 lakh households in 2001, comprising 2.6 lakh households in rural areas and 1.88 lakh households in urban areas. National Building Organization: Housing Data Tables. http://nbo.nic.in/housing%20data%20table.pdf

have thus far been marketed by microfinance institutions (MFIs) as credit for microenterprise, this has precluded households from using microfinance loans for non-productive uses. While home improvements may not necessarily translate to a direct increase in income, the majority of the poor regard their home as their major capital asset, and thus the market demand is considerable. Furthermore, in some instances housing improvement can be regarded as productive since it can be the site of home-based enterprises. In 2004, the Small Industries Development Bank of India (SIDBI) estimated the unmet housing demand amongst the 75 million poor households in India as Rs 10 billion each year.[5]

Housing microfinance must therefore be billed as a separate product in an MFI's portfolio. However, a number of issues have emerged as a result of offering a dedicated loan for housing. These issues include: the legal matter of title; loan security; monitoring end-use or construction; and the capacity to repay a non-income generating loan. After an overview of existing housing microfinance products, this paper intends to explore these core issues in the context of introducing a housing microfinance product to a pre-existing microfinance organization in India, and identifying the details of a loan product given the organization's current operations. While this paper walks through the specifics for one particular organization, the process of the evaluation is meant to be replicable for any microfinance organization interested in unveiling a housing product.

2. Existing Housing Microfinance Products

2.1. The origins of housing microfinance

Housing microfinance is broadly defined as small loans dedicated to housing activities, including, but not limited to: repairing, improving or upgrading housing; investment in infrastructure; the purchase of inhabitable land or permanent structures; and the construction of new housing. This diverse set of activities highlights the need for housing microfinance, and points to the potential range of products that will be necessary to fulfil this need.

Two housing microfinance approaches currently exist in developing countries, both of which aim to promote credit accessibility to improve the shelter of the poor. The first approach is an advocacy-based one, which has arisen out of a need for community mobilization to improve the housing rights of those living in substandard conditions. This programme is

[5] Of the 75 million poor households in India, SIDBI recognizes 15 million as urban while the remaining 60 million is rural. http://www.sidbi.com/english/products/sfmc/microfinance.asp [dead link]

commonly referred to as Shelter Advocacy to Housing Finance (SAHF). While the other is a strict housing microfinance programme, often referred to as Microcredit to Housing Finance (MCHF). This approach originates directly out of the microfinance model for micro-enterprises, and is a result of both MFIs noticing that their loans were being diverted to home improvements and the perception of product development as part of their organizational growth strategy.

The difference between the two rests strongly on their respective origins, as both of these programmes offer housing loan products with an emphasis on reaching the under-served.[6] For purposes of product diversification in a pre-existing MFI, the thrust of this paper is on the MCHF programme of housing microfinance.

2.2. International MFIs providing housing microfinance products

A number of MFIs throughout the developing world have introduced housing micro-finance into their product lines. Some MFIs, like Mexico's FUNHAVI, carry housing loans as their sole product. MFIs introduce housing products for a variety of reasons including:

- *Portfolio diversification*: The advantages of diversification are to distribute risk and to provide a means of cross-subsidizing products. This also often allows housing loans to be offered at lower interest rates, and be featured as a graduated product for those that have previously completed loan cycles with the MFI. Examples of MFIs that have introduced loans for this reason: BancoSol in Bolivia and Grameen Bank in Bangladesh.
- *Emergency or Disaster Relief:* Informal housing bears the brunt of natural disasters because of poor construction and lack of durable materials. Thus, when disaster hits a region in which an MFI operates, their clients are invariably in need of cash to patch or rebuild. CALPIA, in El Salvador, is an example of an MFI that responds to this demand.
- *Response to Competition*: In the face of competition from other MFIs or local banks, MFIs will look to provide new products and services to retain a loyal client base as well as at-

[6] The Center for Urban Development Studies, Harvard University. 'Housing Microfinance Initiatives.' Micro-finance Best Practices (2000).

tract new clients. Housing loans offer a targeted product and longer loan term—both of these characteristics appeal to clients seeking varied financial services.[7]

Financial viability, the impact on poverty and portfolios at risk depend on country and organization-specific contexts. These contexts also affect variables such as loan terms, loan amounts, interest rates and the collateral required (see Table 1 for details on major international players in housing microfinance). However, one thing remains clear: housing microfinance products are becoming an integral part of MFIs' portfolios the developing world over.

2.3. Housing microfinance in India

With the proliferation of various MFIs and NGOs providing microfinance, proportion of population living in informal housing and the sheer number of urban and rural poor, India has a number of organizations that provide housing microfinance products. Kalanjiam Foundation, SHARE Microfin Limited, and Kudumbashree operate in rural areas, while SEWA Bank provides loans in urban Ahmedabad. Key features that differentiate these housing microfinance programmes also represent the challenges of housing microfinance in India (see Table 2):

- *Funding sources*[8]: Financial institutions are reluctant to lend for consumption loans and thus some MFIs find it difficult to meet the housing demand with limited resources. Funding for SHARE comes from a Rs 2 crore credit line from an ICICI Bank partnership, and for SEWA Bank the funding mix consists of monies from housing finance institutions and deposits.
- *Security linkages*: Because of complicated land title and collateral issues, all of the Indian MFIs have linked products, which require either savings deposits or successful repayment of previous loans. This mitigates risk and provides incentives for well-performing clients.

[7] Escobar, Alejandro and Sally Roe Merrill. 'Housing Microfinance: The State of the Practice.' In Daphnis, Franck and Bruce Ferguson, eds. Housing Microfinance: A Guide to Practice. Bloomfield, CT: Kumarian Press (2004).

[8] Udaia Kumar, SHARE Microfin's managing director cited 1) sources of funds and 2) the existing policy environment as the two major obstacles facing housing microfinance. Interview with Udaia Kumar, Managing Director, SHARE Microfin Limited. Secunderabad, India, 6 July 2004.
Moreover, long-term funding presents a problem for MFIs looking to fund larger, long-term loans. 'Access to long term sources of financing is a major constraint for shelter finance organizations and MFIs alike, which tends to limit possible loan terms' (Escobar and Merrill 2004).

- *Lending methodologies*: SEWA Bank lends to individuals, while the other MFIs use group lending through their Self Help Groups (SHGs). Lending methodologies depend on the organizational structure and area in which the MFI operates.

The unmet demand in housing finance for the poor, coupled with the growing number of mature organizations involved in microfinance means that India may well see a sharp increase in housing products in the market. These MFIs must consider the challenges and issues facing the practice of housing microfinance extant.

3. Key Issues in Housing Microfinance

3.1. Land title and collateral

The most elusive issue in housing microfinance is that of legal title. Many of those that do hold legal title have the capability of accessing a variety of mortgage products available from banks or similar private housing finance institutions and thus are rarely those that live in informal housing. But those living in the villages and slums, areas where the absence of legal title is particularly acute, also lack enough capital to improve their existing structure, therefore pursuit of sophisticated mortgage products is unrealistic.

While many rural villagers own their homes, which they likely built themselves, they rarely own the property on which they live. Typically, in rural India, villagers are granted land from the government or live on land passed down to them from their ancestors. These land rights exist through means other than a title deed.[9] Bruce Ferguson calls these land rights 'para-legal title'[10] which he believes should be recognized by housing MFIs when disbursing a loan.[11] This legitimizes of the rights of villagers whose lack of legal title would otherwise prohibit them from obtaining a loan from formal financial institutions.

Although para-legal title serves as a reasonable proxy, it cannot be recognized on a mass scale. Lack of title prevents lenders from addressing the housing shortage issue in rural areas. A National Housing Bank (NHB) report in 2000 noted the complexity of the issue:

> The primary lending institutions have expressed that they are unable to lend more in the rural areas mainly because of absence of clear title to the land on which the house

[9] Daphnis, Franck and Kimberly Tilock, et al. 'SEWA Bank's Housing Microfinance Programme in India.' Cities Alliance (2002).
[10] Para-legal title refers to proof of ownership through means other than full title. Such proof may be in the form of receipts from property taxes or other property-related charges or a bill of sale.
[11] Daphnis, Franck and Elinor Haider. 'Mainstreaming Microfinance of Housing.' *Housing Finance International* Vol. XV, No. 1 (September 2000): 3-17.

> is to be constructed and non-acceptability of agricultural land as collateral security for housing. The respective State Governments will have to play a facilitating role so that the lending institutions can lend with comfort to the people in these areas.[12]

The matter of title in India is further complicated by the fact that no central registry exists to provide definitive information concerning ownership. People often take advantage of the poor and sell land that they themselves do not own. Therefore, it is a matter of policy to ensure that those who own land *de facto* or through para-legal title are recognized as those with property rights.[13]

Land title is regarded as a legal recognition of an asset, and thus can be leveraged as collateral when borrowing. Lack of title further begs the question as to what, then, can be recognized as collateral against a housing loan. In the case of many organizations that provide microfinance, hard collateral is not a necessary prerequisite for lending. In India, the Self Help Group (SHG) model predominates, which utilizes group guarantees, exercising peer pressure and character assessment to mitigate risk of non-repayment.

A study by Madeline Klinkhamer (2000) shows that the lack of paper title should not preclude microlending for housing purposes, particularly for shorter term, smaller loans. In fact, the onerous process of foreclosure[14] is prohibitive for MFIs to enforce even in the presence of clear titles. Additionally, the very idea of collecting on a poor family's land or home in the case of non-payment is a morally difficult task. Given both the burden and the moral impediment of foreclosure, efforts to formalize policy surrounding a regulatory framework for land title must be addressed before MFIs can focus on land title as collateral. Meanwhile, shorter, smaller loans can avail existing microfinance 'modalities,' such as group liability structures and alternate forms of collateral to guarantee the loan.

3.2. Construction services

Just as uncertain property right characterize informal housing, the way in which the poor build equally influences the design of housing microfinance products. Generally, the building of informal housing is an incremental process whereby its inhabitants upgrade and

[12] National Housing Bank, 'Report on Trend and Progress of Housing in India' (June 2000), p. 6.
[13] Rao, S.V. and P.S.N Prasad, 'Urban Land Transactions and Conferment of Conclusive Title' in Misra K. Girish and P.S.N Rao, eds. *Housing Legislation Policies in India: Policies and Performance*. New Delhi, India: Kanishka Publishers (2000).
[14] Klinkhamer uses the example of BASIX in India as an organization that faced years of legal and opportunity costs pursuing foreclosure. Klinkhamer, Madeline. 'Microfinance Housing Products and Experience with Land Title as Collateral.' Latin American and Caribbean Division, World Bank Paper, 2000, p. 13.

expand one fixture or one room at a time.[15] The incremental building process is largely attributed to the unsteady and limited income stream of those informally employed; additionally the residents themselves commonly perform the labour, [16] contributing what is referred to as 'sweat equity.' Bruce Ferguson and Elinor Haider (2000) insist that microfinance, with its small loan amounts and short repayment periods, fits the model of incremental housing. They note that homes may be built over the course of five to fifteen years, during which time small amounts of capital would enable a more efficient and economical process of construction for the poor.

However, housing built quickly and with substandard materials depreciates faster, and incremental building with limited resources may focus too much on new areas of improvement neglecting general maintenance that is needed over the life of the incremental building process. Therefore, it is useful to look at a number of housing loan schemes, from home repair to new construction. Considering a range of housing finance options recognizes both the diversity in the existing needs of an organization's clientele as well as acknowledging that the needs of the poor change with time and as their income levels increase. Many clients believe that incremental changes are too temporary and in the end cost more than building anew. On the other end of the spectrum, the total transformation of houses from *kaccha* hutments constructed of poor or semi-permanent material, to *pukka* permanent structures, is the next step for microfinance clients who are ready to take on larger loans.

The method by which construction is undertaken may further complicate establishing a housing microfinance loan product. For example, oversight of where and how the funds are spent includes observing whether or not the borrower is building in a way that increases the sustainability of their structure. Franck Daphnis reminds MFIs that they should consider the dual priorities of 'due diligence and follow-up' to make sure that the funds are being directed towards their intended use.[17] Whether or not this is the role of the MFIs is a question worth considering. Granted, many loans previously allocated to microenterprise development have been otherwise redirected to housing maintenance. But if housing microfinance is to be a separate product from microcredit then there is value in introducing building standards. Re-

[15] Ferguson points out that 'over 70 % of sectoral investment in developing countries occurs incrementally, through this "progressive housing".' Ferguson, Bruce. 'Housing Microfinance—A key to improving habitat and the sustainability of microfinance institutions.' *Small Enterprise Development* Vol. 14, No. 1 (March 2003), p. 22.

[16] Davis, Geoff and Eliza Mahony. 'Housing Microfinance: Building the Assets of the Poor, One Room at a Time.' Harvard University John F. Kennedy School of Government Policy Analysis Exercise (2001).

[17] Daphnis, 'Elements of Product Design for Housing Microfinance' in Daphnis, Franck and Bruce Ferguson, (eds.) *Housing Microfinance: A Guide to Practice*. Bloomfield, CT: Kumarian Press (2004).

cent evidence shows that borrowers are seeking credit-plus when it comes to housing,[18] and therefore MFIs should analyse the benefit potential of offering additional services, such as construction/technical assistance, etc.

Findings from the field suggest that there is little need for due diligence. However, when incremental construction is performed with readily available materials, it is often done by the villagers themselves, which does not guarantee durable structures. On the other hand, new construction and improvements requiring larger loan amounts are performed by masons who are familiar with the construction materials and methods required to build suitable structures. The merits of stimulating the local economy by using locally-sourced masons and materials not only add to the argument that housing microfinance can serve as a pump-prime for economic development, but can serve as a means of ensuring better quality construction.

3.3. Factoring in added costs

In some instances where MFIs identify that monitoring the use of funds is necessary, they must consider how to meet any added costs that this activity will entail. Since end-use monitoring would undeniably contribute to increased administrative costs, the added costs must be borne by either the organization, the client, or through a partnership organization.

An MFI may decide to hire its own technical staff or require more field visits for loan officers evaluating loan applications for housing. Similarly an MFI may outsource to NGOs or other organizations whose core function is to provide technical expertise. This can minimize any drastic alterations to the field operations of a currently well-performing MFI. These increased costs can be addressed in one of the following ways:

- *Interest Recapture:* MFIs may use a percentage of the interest gathered from loan repayments to fund additional costs. Kalanjiam, for example, currently uses 1 per cent of the interest from housing loans to pay its 'housing cells,' which employ engineers.
- *Premium Fees:* MFIs can charge a nominal fee to clients that avail a housing product.

3.4. Dedicated funds

[18] SEWA reports that borrowers are increasingly asking for more housing related services in addition to their housing loans. UNHABITAT—United Nations Human Settlements Programme. Financing Urban Shelter: Global Report on Human Settlements, 2005. London: UNHABITAT (2005), p. 117.

The proliferation of housing microfinance has been constrained by the lack of credit lines specifically for housing loans. Most financial institutions are reluctant to lend for consumption loans, so MFIs face particular problems when attempting to secure dedicated funds for housing. This issue is further complicated by term risk when short term loans finance longer term loans.[19] Thus it is essential that MFIs find matching term loans to fund housing products should they anticipate that housing loans be a significant portion of their portfolio.

4. Market Analysis: A Demand Driven Approach

4.1. Organizational overview

In designing a housing microfinance product, the most successful approach is a demand driven one, which addresses current market realities. As mentioned, the exercise in developing a housing product will be performed in the context of an existing organization, Ankuram Sangamam Porum (ASP).

Started in July 2000, ASP is a Dalitbahujan Cooperative Federation which promotes self-help groups to attain financial security through microfinance. Currently, ASP consists of over 100,000 members, the majority of whom are women belonging to the scheduled caste, scheduled tribe, backward caste and minority groups. ASP operates through a commitment to Dalitbahujan empowerment throughout the state of Andhra Pradesh (AP).[20]

Exhibit 1: ASP's membership and lending portfolio as of 31 March 2004.

Total Membership:	100,500
Active Borrowers:	4,100
Total Amount of Loans Disbursed:	Rs 233.27 lakh
Total Repayments Received:	Rs 10.73 lakh
Total Outstanding Portfolio:	Rs 210.46 lakh

[19] This was cited as a potential problem for MiCasa'sloan portfolio (MiCasa is an MFI based in Peru), as the number of housing loans began to grow relative to microenterprise loans. MiCasa is addressing this risk by funding longer term loans with a 5-year line of credit. ACCIÓN International. 'Building the Homes of the Poor—One Brick at a Time.' *InSight* No. 4 (January 2003).

[20] ASP's Mission Statement: We, the Dalitbahujan women and men along with our friends, commit ourselves to building a *vibrant and self-reliant network of independent and interdependent community owned/managed co-operative institutions* that make the difference to the quality of life of half a million Dalitbahujans by March 2008.

Repayment Rate:	100 per cent
Portfolio at Risk (more than 60 days):	0

ASP is interested in providing a housing loan to meet a number of economic and social purposes including the following:

- *Increasing the Portfolio and the Return on Share Capital*: The members' return on share capital is directly proportional to ASP's portfolio size. Housing loans would enable ASP to grant larger loans, contributing to an overall growth in the portfolio and thus raising the return on share capital investments.
- *Asset Realization*: Often, the house is the only viable asset that Dalits own since many have lost their land to bonded labour contracts. Thus, helping them capitalize on their greatest asset falls in line with a key tenet of microfinancial services and its aim to increase financial leverage for the poor.
- *Social Impact*: Promoting a housing product encourages members to create a safe and healthy community through housing improvement.

4.2. Methodology of data collection

ASP currently has a deficiency of data relating to the demand for a housing product. As such, an initial assessment of demand was performed. In the absence of sufficient hard data, demand indicators were developed based on survey results and field visits.

The information collected represents both quantitative and anecdotal data. A broad survey was conducted in Hyderabad on 25 June, 2004 at a general body meeting of the board members of mandals or Mutually Aided Cooperative Societies (MACS). The idea was to conduct a survey that could be taken quickly by the women, some of whom are illiterate. The survey consisted of 10 questions geared towards capturing how the women and their families perceived housing in terms of importance and improvements made. The final data aided in determining demand as well as to shape the questions that would be asked in the field.

4.2.1. Results of survey

The broad survey yielded tangible results in terms of demand (see Appendix 1 for the questionnaire and summary of findings). Eighty-five women responded to the survey; all of

them mandal presidents and board members. The responses of the women were meant to reflect their observations of the activities of their constituents. While most of the women had not observed that their constituents availed loans for housing purposes, the 18 per cent of respondents that did report that their constituents had used a loan for housing purposes, represents a significant figure, given that ASP loans are specifically supposed to be for income generation. Seventy-nine percent of respondents expressed that they would be interested in dedicated housing loans. The roof was the most frequently improved part of the house, with respondents noting that 85 per cent had undertaken this improvement, regardless of whether or not borrowers had used loans for housing purposes. Slightly more than half, 54 per cent, of the all respondents noted that housing improvements were made by the actual family members residing in that house.

Although this data is suggestive, it is by no means conclusive. There are a number of factors that may cloud some of the findings, including the fact that some of the women worked on their surveys together, some did not fully understand the questions being asked and some seemed to answer the way they believed would produce more loans for them. Generally, however, we can assert that demand is present for a housing product, and that there is a need to further explore aspects of the physical housing that will reveal a more descriptive picture of housing demand.

ASP hypothesized that demand would be split regionally, along income and asset lines. The three regions in AP in which ASP operates are Telengana, Rayalaseema and Coastal Andhra. All regions surveyed showed interest in housing loans irrespective of varying income levels across the regions, with a slight variation in preferences for various improvements (see Appendix 2). Income plays a role insofar as the more expensive improvements, such as building an additional room, were more likely undertaken by those in the more fertile Coastal Andhra. Within regions, the variation in incomes is quite low, since Dalit communities in the regions visited are more economically homogenous than surrounding communities.

4.2.2. Region-specific field visits

Regional analysis of demand consisted of two aspects: 1) informal interviews with SHG members; 2) assessment of the physical housing. Informal interviews utilized direct questions concerning the use of current loan funds, the source of funds for housing improvements or construction, the specific costs of housing related expenditures and opinions on an

actual housing loan product. The assessment of physical housing noted the materials used, cost of construction and existing housing conditions. The findings are summarized in Table 3.

4.2.3. Indicators of demand

As a result of the survey and the informal interviews, a number of indicators of demand for a housing microfinance product emerged. These indicators may be used as both proxies for and supplements to the existing data, and provide a more detailed portrait of demand in rural AP. The following represent the demand indicators observed:

1. Diversion of income generation loans for home improvements
2. Lack of other forms of subsidies or credit for housing construction/improvement
3. Large loans available at higher interest rates
4. Presence of 'housing emergencies' that necessitate large amounts to fix
5. Positive response at the mention of such loans
6. High annual costs of repairing faulty construction
7. Signs of insufficient financing (e.g. incomplete construction projects)

Table 3 displays the indicators of demand relevant for each region.

4.3. Government subsidies and other supply side factors

The supply of housing finance in rural AP is small, with government subsidies for housing having the maximum impact on demand. Government subsidies—specifically under the Indira Awaas Yojana programme—administered by the Andhra Pradesh State Housing Corporation, are present in both Telengana and Rayalaseema. Indira Awaas Yojana subsidizes target scheduled castes/scheduled tribes, to which ASP's clients belong. Generally, subsidies are sanctioned to the identified 'poorest of the poor' in target areas. Those identified are then required to make a capital investment—usually they must fund the construction of the house's foundation—before subsidies, usually in the form of durable materials, are disbursed. Requisitions are processed as benchmarks are completed, namely after the completion of the basement, walls and roof. This method ensures that the desired materials and building methods are employed during construction.

Based on India's Union Budget, 2005-2006, there is no indication that these construction subsidies for rural housing will end soon. Rs 2750 crore has been earmarked for rural

housing, specifically 'for the rural poor to be built by themselves.'[21] Continued inflow of government subsidies affects the potential viability of housing loans in two seemingly conflicting ways. First, in some regions villagers have come to expect that they too will receive subsidies, and thus show reluctance at expressing interest in housing loans. Second, the fact that under the subsidy programme initial capital is required to construct the house's foundation presents a unique opportunity for a housing credit product.

Those providing microfinance should be aware, however, that government subsidy programmes and institutional grants for housing have the ability to crowd out opportunities for microfinance. Subsidies and grants often create a culture of expectation among beneficiaries, particularly in terms of waiting for a top-down solution, which is antithetical to the microfinance ethos of self-initiated betterment through the mobilization of personal assets. Government subsidies are also vulnerable to budget cycles and local disbursement mechanisms, rendering them unreliable. Finally, subsidies and grants cannot fill the gap between housing supply and demand alone, and are not a sustainable mechanism to stand against variable market conditions. Credit top-off programmes to supplement government subsidy reveal a viable opportunity for partnership, so MFIs should be aware of the subsidy and grant programmes currently available in their operational areas.

Finally, moneylenders provide the only source of readily-available housing loans for ASP's clients, and some have taken advantage of this access. In Rayalaseema, moneylenders are lending at a rate of 60 per cent per annum, gouging the market. Intermediation by ASP would reduce the supply-demand gap of housing credit for their clients, providing affordable credit to meet the demands of its operational areas.

4.4. Assessing capacity to pay

Identifying potential demand is not sufficient to introduce a housing microfinance product. There must also be a demonstrated capacity to repay the loans given. Traditionally, microenterprise loans use future income of improved businesses to gauge repayment ability. In this case, reasonable proxies must once again be identified since income may not be directly affected by housing loans. The following represent the indicators observed; note that there is some overlap with the indicators of demand:

[21] Budget highlights of the Central Plan 2005-2006, http://indiabudget.nic.in. It is noted that this allocation should yield around 15 lakh houses.

1. Diversion of income generation loans for home improvements, or other traditionally non-productive loans
2. Ability to pay back similar loans that carry equal or higher interest rates
3. Income qualification, based on calculated repayment rates for potential housing loans (this was only observed in villages near Hyderabad, since urban centres provide more stable incomes and a higher probability of formal labour)
4. Home-based businesses that would increase income if housing were improved

Coupling one of the above indicators with an indicator of demand strongly suggests that a housing loan would be well received. A detailed affordability analysis will be undertaken in Section 5.5 in order to determine reasonable loan terms based on the borrower's actual capacity to repay.

5. Housing Microfinance Product for ASP Overview

The following represents general guidelines for proceeding with the introduction of a housing microfinance loan product for ASP. This is not meant to be a definitive set of rules for the organization; rather it should highlight key considerations, should ASP move forward on developing a housing product.

5.1. Retaining group lending model

ASP's operations are rooted in the group lending model, which they believe provides both the necessary distribution of risk as well as a backbone of community within the Dalit villages. The following outlines the organizational structure of ASP.

Self-Help Groups (SHGs) consisting of 10-15 members are organized along the themes of Sangamam ('meeting point' for women), Ankuram (agri-business), and Poram (leather workers). Each SHG elects two leaders to represent the group in the MACS. All members pay Rs 250/- in share capital and Rs 11/- for membership. Women may join another group besides Sangamam, but men are allowed membership in only one group. SHGs hold monthly meetings to collect savings and loan payments as well as to discuss social and community issues. Members of these groups also serve as guarantors for each other when taking loans.

Mutually Aided Cooperative Societies (MACS) have an 11-15 member governing board, elected from the leaders of the constituent SHGs. MACS provide a crucial link between its members and government bodies, financial institutions and other local organizations. Staff of three field officers is supported by the federation. MACS become share-holders of the ASP state federation by providing Rs 1000/- as share capital and Rs 1000/- in membership fees. There are currently 108 registered MACS. The activities of MACS are monitored as individual business units as reported through their annual Business Development Plans (BDPs). The federation determines levels of support based on BDPs.

The ASP Federation is a registered MACS consisting of the sub-group of registered MACS at the mandal. The elected presidents of the member MACS constitute the federation's general body, which then elects its board of directors.

This organizational structure suggests a participatory framework for members, as they are represented at every level. At the local level, a sense of community is developed since all members are Dalits and meet on a regular basis. Similarly as group members are from the same village, they will be familiar with the housing situations of their fellow members, providing field officers with a valuable perspective on the extent of work that will need to be covered by a loan. Thus, group guarantees will continue to provide a means of offering innovative loan security. However, in some instances, joint liability can be extremely difficult to manage for large, long term loans. While one group member may be ready to take on a housing loan, another may not be willing to take on the risk. Although group guarantees provide the best means of ensuring repayment under the group model, ASP should explore ways of managing group guarantees as total group liabilities increase with new products.

5.2. Linked product

ASP's housing product should take a cue from the other Indian MFIs providing linked securities, such as requiring a savings balance equivalent to a percentage of a given loan, or requiring that a borrower has already completed a number of loan cycles. Linked securities not only show that the borrower has been active in formal financial activities, but can also provide another means of loan security. Since ASP carries the following services, there is ample opportunity to link a housing product to ensure a reduction of risk.

1. Savings Products—Savings of Rs 30/- per month per member is compulsory. Members are only allowed to withdraw savings when they leave the SHG. Anything beyond the compulsory amount is considered voluntary and can be withdrawn with one

week's notice. Savings are kept as deposits in a group account at a local bank. Mandating a savings balance equivalent to either a percentage of the house value or a set amount of monthly payments of the total loan can link the housing loan product to savings.

2. Credit Products—Loans are currently available to members for income generation in farm and non-farm activities. ASP services loans from MACS to SHGs and from ASP to MACS. SHGs are also encouraged to take group loans based on their deposits in a local bank to supplement the amount of available credit to its members. Requiring a set number of completed loan cycles can be used to graduate a client to a housing loan.

3. Insurance Products/Social Security—Mandatory life insurance is required at Rs 100/- per annum. Voluntary Social Security savings are available to the members, and payment amounts equal Rs 20/- per month or Rs 240/- per year. If offering a housing product, ASP should look into home insurance to protect against fire and natural disasters.

4. Cooperative Services—The federation supports member MACS in meeting costs as well as in terms of financial and regulatory monitoring, including internal and external audit, statutory obligations and rating MACS under international standards. Such a forum may also be ideal for marketing housing loans or encouraging home improvement or homeownership training.

Six months of compulsory savings and enrolment in life insurance are current prerequisites for borrowing for income generation loans.[22] In addition to this, borrowers interested in taking out a housing loan should have completed at least one loan cycle of income generation loans in order to qualify for the loan amount for minimum improvements (see next section for full details on possible housing products). This ensures that they understand the borrowing process. Along with group guarantees, compulsory savings and previous borrowing serves as a substitute for hard collateral.[23]

5.3. Market segmentation

From the assessment of demand two main observations emerged 1) there are different levels of capacities to pay and 2) there are different needs in terms of loan amounts, from funding a roof upgrade to the construction of a concrete-slab house. Thus a segmented product makes sense for ASP, which allows the maximum number of clients to take advantage of the housing product and tailors financial services to a range of customers.

[22] Note that the cost of capital is affected by the interest paid to savings accounts.
[23] Due to the migratory nature of slum dwellers, those lending in urban areas may also look at history of residency at the borrower's current address. Uncertainty of stay will affect risk calculations for MFIs.

Based on the demand indicators, an appropriate product may be structured into three tiers. *Tier 1* would enable those that are interested in minor improvements, including the replacement of a palm frond roof, installation of shelving, patching of walls and floors, etc. This loan would be open to all borrowers following the criteria of a savings history and the completion of at least one loan cycle.

Tier 2 focuses on meeting the demand of capital supplementation given the sanction of government subsidies. Although mid-sized upgrades are allowable under this structure, priority will be given to those seeking to avail government subsidies. Usually this amount will be used to build a foundation in order to take advantage of a credit-cum-subsidy opportunity. This amount may also be used to bridge the gap between the subsidy given and the amount needed to complete construction.

Tier 3 is strictly for new construction of a concrete slab house. Although this amount will not cover the entire amount of construction, it affords an opportunity for star borrowers and those with slightly higher incomes to realize their borrowing and repayment potential. Typically, the amount will cover up to 75 per cent of the total construction cost—a figure based on discussions with ASP clients looking to build a new home.

5.4. Terms of the loan product

Exhibit 2: Terms of the Loan Product

	Prerequisites	Loan Term	Loan Amount	Interest Rate (for members)	Details
Tier 1	6 months savings; one completed loan cycle	1 year	Up to Rs 5,000	20 per cent	For minor improvements
Tier 2	6 months savings; one completed loan cycle; government sanction or intention to perform mid-sized improve-	3 years	Up to Rs 20,000	20 per cent	For mid-sized improvements; supplements government subsidy
Tier 3	Savings history; completion of at least two loan cycles with no late payments; higher than	10 years	Up to Rs 65,000	18 per cent	New construction of concrete slab house

	age income or liquid savings equivalent to six months of payments				

5.4.1. Reducing the interest rate

Interest rates for housing microfinance should employ the same methodology as rate setting for any other loan product. The rate is generally determined by a market-driven analysis which includes cost of funds, loan loss and capitalization as parameters. Current interest rates for ASP are as follows; all rates refer to a declining balance calculation:

- ASP lends to MACS at 18 per cent p.a.
- MACSs lend to SHGs at 22 per cent p.a.
- SHGs lend to members at 24 per cent p.a

While aiming for operational self-sufficiency, ASP must also pay close attention to the operational costs that need to be covered. ASP will see more leeway in setting interest rates when they become financially self-sustainable. For purposes of this analysis, housing improvement loans are set at 20 per cent p.a. for members and new construction loans are set at 18 per cent. As operational costs decrease ASP should be able to achieve these rates. They may also take Grameen Bank's lead in using the interest on microenterprise loans to cross-subsidize housing loans.

There are a number of reasons for providing lower interest rates for housing microfinance loans, including:

- *Marketing*: A lower interest rate attracts clients to the loan product and keeps the MFI competitive.
- *Reduced Risk*: If the loan is secured, housing loans can often be perceived as less risky since the length of the loan allows for manageable payments, reducing the incidence of default.[24] If a microfinance provider observes this to be true, loan loss reserves can be decreased, enabling a lower interest rate[25]

[24] However, there is a still a perceived portfolio risk—particularly if the MFI is dependent on short term loans for funding—with housing loans as a larger chunk of an MFIs portfolio will be exposed for a longer period of time.
[25] Daphnis in Daphnis and Ferguson 2004.

- *Rewarding Star Borrowers*: The existence of lower interest loans provides an incentive for those who have stellar repayment records and have already completed at least one loan cycle.
- *Social Benefit*: Loans for housing inherently carry value for clients that must be demonstrated through the actual terms of the product, thus a favourable interest rate reflects this belief.

5.4.2. Larger loans and longer loan terms

Adjusting loan amounts and loan terms is a way of differentiating products. The capital required for substantial home repair or new construction is much higher than the capital for income-generation activities. Therefore, in order to make housing loans affordable for clients, larger loans with longer tenure presents a way of realizing realistic monthly payments that match repayment capacity.

As ASP strives towards self-sustainability it relies on a number of grants and term loans to support its operational capacity. Exhibit 3 outlines ASP's institutional support, as of June 2004.

Exhibit 3: ASP's Institutional Support as of June 2004

Funding Agency	Line of Support	Amount	Interest Rate	Other
CordAid	Grant	Rs 135 lakh	N/A	
Ford Foundation	Grant	Rs 38 lakh	N/A	
Christian Aid	Grant	Rs 45 lakh	N/A	
SIDBI	Loan	Rs 90 lakh	11 per cent	Santioned Rs 150 lakh and disbursed Rs 90 lakh
Syndicate Bank	Loan	Rs 50 lakh	8 per cent	Sanctioned Rs 90 lakh
FWWB/INDIA	Loan	Rs 60 lakh	13.5 per cent	Entire sanctioned amount disbursed
Basix	Loan	Rs 30 lakh	12 per cent	Entire sanctioned amount disbursed

ASP's flexibility in the size and length of its housing product is constrained by its current dependence on grants and term loans. In its efforts to reach operational self-sustainability, ASP has not factored in offering new products which require additional streams of capital. Therefore, ASP must ensure that it can adequately raise capital to meet its growth in operations and services.

There are two main considerations for loan terms; 1) the length of exposure to risk that the MFI is willing to undertake, including the availability of matching term funds; and 2) the client's capacity to repay the loan in the time granted. ASP currently has a maximum loan term of 24 months on its highest loan category (Rs 15,000 and above). Increasing the loan term for larger amounts enables ASP to offer the larger loans needed for new construction. Field interviews suggested that ASP's clients were willing to take on loans for up to 10 years. Given their current, short-term loans, ASP must consider whether it is willing to expose a portion of its portfolio for that long.

5.5. Affordability analysis

In order to gauge the likelihood of repayment, a simple affordability analysis can be performed based on the segmented product (see Table 4). This table is a guide for measuring

repayment capacity for a loan product based on the amount needed to make an improvement, the term, interest rate and amount of income used to repay loan (in this case, 30 per cent of the income is allotted to repayment).

A question for ASP is whether they will place a debt cap on borrowers. For example, if a borrower is currently repaying a housing loan, will it be possible for them to take a parallel income-generation loan? On the one hand, debt caps provide a means of managing borrowers' debt burden, and on the other it can pose a serious constraint to borrowers, particularly if they have a large outstanding loan balance, such as with a housing loan. Another related issue surrounds unchecked debt burden. While borrowing from external sources is frowned upon, SHGs currently only have the capability to track loans taken from the group. Since housing loans may be significantly larger than the loans SHG members currently have access to, better monitoring of borrowing activity outside ASP services should be undertaken.

5.6. Product implementation

The housing product should initially be introduced to star MACSs, graded A, or above by ASP's current rating system. These MACSs are currently being issued the largest lines of credit for income generation loans. Similarly, only these MACSs will be eligible for housing lines of credit with amounts to be determined by ASP. The process of sanctioning a loan from ASP will be similar to the current process for income-generating loans. Members must submit details on their intention to construct or improve. This should include the improvements to be made, cost of said improvements and means by which they intend to complete the improvements (materials they will use, external labour required, etc.).

In the initial stages of the product roll-out, construction and end-use monitoring will be minimal. Because work on housing is a relatively conspicuous activity, SHG members will be encouraged to informally monitor the use of their group members' housing loans. As is the case now with any loan, abuse of housing loans will result in intervention from ASP either at the MACS or mandal level.

6. Partnerships

Given the challenging issues related to housing microfinance, which may present both organizational hurdles as well as those related to the general policy environment, it is recom-

mended that organizations involved in microfinance forge partnerships to support new product development. Exhibit 4 below summarizes potential partnerships that have been touched upon earlier in this paper.

Exhibit 4: Potential Partnerships

	Who	*Why*	*Feasibility*
To Build Capacity	NGOs	• Technical expertise • Can bring own funding	Very feasible given availability of NGOs with expertise.
	Institutional Lenders	• Long term loans • Favourable rates	Feasible if an MFI's tions meet assessment criteria. Supply presently meets institutional lenders' priority lending requirement.
To Improve the Policy Environment	Government	• To ensure subsidy goes to poorest of the poor • To implement credit-cum-subsidy scheme • To recognize paralegal title	Can be messy. Some state governments are notoriously bad at managing NGO relationships. Party politics often get in the way.

7. Conclusion

By taking an in-depth look at housing microfinance, we see that there is a variety of products in the market, each with its own terms. This reflects the core of product development, which is about finding creative solutions to get around both internal and external constraints, and to mitigate the risks associated with both. While this report explored the opportunities and constraints of introducing a housing microfinance product in a very specific context, the basic framework for analysis can be applied across the spectrum.

In particular, the introduction of a housing product allows organizations involved in microfinance to promote growth strategies from a holistic view of client demand, organizational capacity and partnerships. Organizations are forced to reflect on their operations, market stance and future strategy. Meanwhile, exploring partnerships provides a means of fulfill-

ing the multi-dimensional housing needs of the poor, and ensures a sustainable environment for additional opportunities in product development.

The case study of ASP allows for a pragmatic approach to exploring the introduction of a housing microfinance product. A balance of field research, including a market assessment, informal interviews with potential borrowers, and a review of the current housing stock, illustrated the basic elements of product design. Given the limited resources of many MFIs, an assessment need not be onerous or sophisticated, rather it should, at a minimum, reflect particular realities that can affect the success of a new product. Efforts towards better targeting through product design and the fostering of partnerships leads to an increase in penetration and a greater menu of financial services for the poor. Product innovation, starting with financing for essential goods, symbolizes the infinite potential of microfinancial services and sheds light on the nuanced needs of the poor.

References

ACCIÓN International. 'Building the Homes of the Poor—One Brick at a Time.' *InSight* No. 4 (January 2003).

Baken, Robert-Jan. *Plotting, Squatting, Public Purpose and Politics: Land Market Development, Low Income Housing and Public Intervention in India*. Burlington, VT: Ashgate Publishing Company (2003).

Basu, Kanika. 'Housing Microfinance: Issues and Constraints.' *Shelter* Vol. VII, No. 1 (January 2004): 110-113.

Bhatt, Mihir R. 'Urban Slums Report: The Case of Ahmedabad, India.' UN Global Report on Human Settlements (2003).

Bhole, Vijaya. *Housing and Urban Development in India*. New Delhi, India: Classical Publishing Company (1988).

Brown, Warren. 'Initiative on Housing Microfinance: ACCION International,' Powerpoint Presentation (December 2002).

Census of India Website. http://www.censusindia.net/

Chen, Martha and Donald Snodgrass. *Managing Resources, Activities and Risk in Urban India: the Impact of SEWA Bank*, Washington D.C.: AIMS (2001).

The Center for Urban Development Studies. 'Housing Microfinance Initiatives.' Microenterprise Best Practices, Harvard University (2000).

Daley-Harris, Sam. 'State of the Microcredit Summit Campaign Report' (2003).

Daphnis, Franck and Bruce Ferguson, eds. *Housing Microfinance: A Guide to Practice*. Bloomfield, CT: Kumarian Press (2004).

Daphnis, Franck and Kimberly Tilock et al. 'FUNHAVI's Housing Microfinance Program in Mexico.' Cities Alliance (2002).

Daphnis, Franck and Kimberly Tilock et al. 'SEWA Bank's Housing Microfinance Program in India.' Cities Alliance (2002).

Davis, Geoff and Eliza Mahony. 'Housing Microfinance: Building the Assets of the Poor, One Room at a Time.' Harvard University John F. Kennedy School of Government Policy Analysis Exercise (2001).

Ferguson, Bruce. 'Housing Microfinance—A key to improving habitat and the sustainability of microfinance institutions.' *Small Enterprise Development* Vol. 14, No. 1 (March 2003): 21-31.

Ferguson, Bruce and Elinor Haider. 'Mainstreaming Microfinance of Housing.' *Housing Finance International* Vol. XV, No. 1 (September 2000): 3-17.

Gujarat Manila Housing SEWA Trust Website. http://www.sewahousing.org

HUDCO Website. http://hudco.org

India's Union Budget Website http://indiabudget.nic.in

Klinkhamer, Madeline. 'Microfinance Housing Products and Experience with Land Title as Collateral.' Latin American and Caribbean Division, World Bank Paper, (2000).

Ledgerwood. Joanna. *Microfinance Handbook: An Institutional and Financial Perspective*. Washington D.C., USA: The World Bank (1999).

Misra, K. Girish and P.S.N. Rao, eds. *Housing Legislation in India: Policies and Performance*. New Delhi, India: Kanishka Publishers (2000).

Malhotra, Mohini. 'Micro-Finance for the Poor.' *Habitat Debate* Vol. 9, No. 1 (April 2003).

National Building Organization, 'Housing Data Tables' (2001).

National Housing Bank, 'Report on Trend and Progress of Housing in India' (June 2000).

Rutherford, Stuart. *The Poor and Their Money*. New Delhi, India: Oxford University Press (2000).

Simanowitz, Anton and Ben Nkuna et al. 'Overcoming the Obstacles of Identifying the Poorest Families.' Prepared for the Microcredit Summit, Côte d'Ivoire (1999).

Smit, Judy Luk. 'Options for Developing India's Housing Finance Systems.' Harvard University, John F. Kennedy School of Government, Second Year Paper (2002).

UNDP—World Bank Water and Sanitation Program—South Asia. 'Credit Connections: Meeting the Infrastructure Needs of the Informal Sector through Microfinance in Urban India' (July 1999).

UNDP—World Bank Water and Sanitation Program—South Asia. 'Proceedings of the National Workshop for Infrastructure: Recent Experiences' (31 August, 2000).

UNHABITAT—United Nations Human Settlements Programme. *Financing Urban Shelter: Global Report on Human Settlements, 2005*. London: UNHABITAT (2005).

Appendix 1: Questionnaire 1
Summary of Findings

Q1. ***Have members of your SHG used loans to finance housing improvements?***	
Yes	18%
No	81%
No response	1%

Q2. ***Have members of your SHG used loans to purchase land?***	
Yes	11%
No	89%
No response	0%

Q3. ***Do most people in the village own the land they live on?***	
Yes	82%
No	13%
No response	5%

Q4. When people in your village make housing improvements what do they usually do?	
Fix roof	85%
Fix or build walls	78%
Build shelves	62%
Fix floors	72%
Put in electricity	82%
Add an extra room	52%
Build latrine	69%
Put in plumbing	35%

Q5. ***Do most of the homes in your village have plumbing?***	
Yes	35%
No	62%
No response	3%

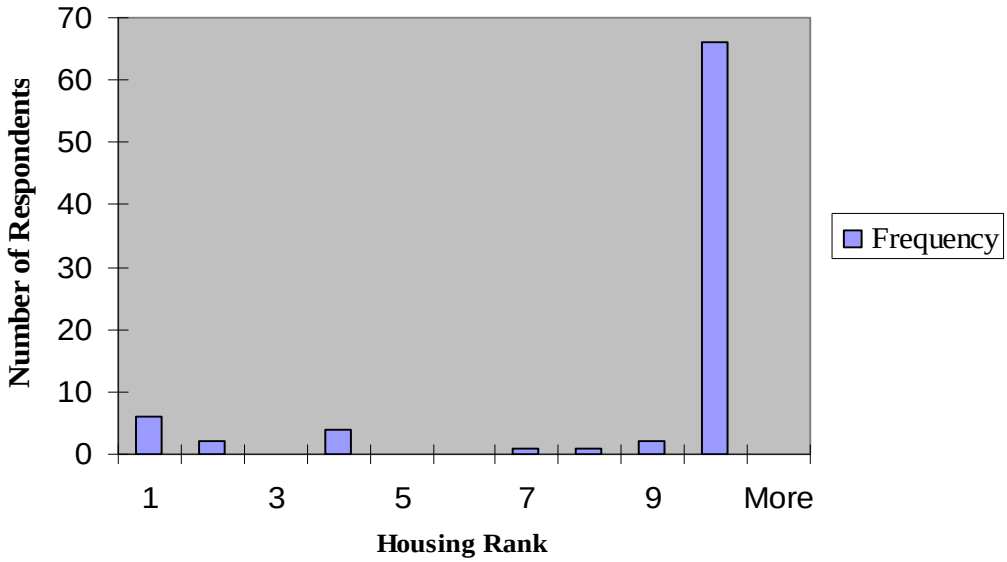
Q6. ***Do most of the homes in your village have electricity?***	
Yes	80%
No	19%
No response	1%

Q7. ***Would you or your group members be interested in larger loans, with longer re-payment terms to be used only for housing?***	
Yes	79%

No	19%
No response	2%

Q8. ***If someone fixes their home, would they or someone in the family do the actual building?***	
Yes	54%
No	45%
No response	1%

Q9. ***How Important is Housing to You?*** **(10 being the most important)**



Q10. ***Do you feel that loans are the best way to improve housing?***	
Yes	67%
No	32%
No response	1%

Appendix 2: Regional Findings

C = Coastal Andhra NA = No Answer R = Rayalaseema T = Telengana

Q1. ***Have members of your SHG used loans to finance housing improvements?***				
	Yes	**No**	**Left Blank**	***N***
C	6 (12%)	43 (86%)	1 (2%)	50
NA	4 (80%)	1 (20%)	0	5
R	0	6 (100%)	0	6
T	5 (21%)	19 (79%)	0	24
Total	15 (18%)	69 (81%)	1 (1%)	85

Q2. ***Have members of your SHG used loans to purchase land?***				
	Yes	**No**	**Left Blank**	***N***
C	4 (8%)	46 (92%)	0	50
NA	3 (60%)	2 (40%)	0	5
R	0	6 (100%)	0	6
T	2 (8%)	22 (92%)	0	24
Total	9 (11%)	76 (89%)	1 (1%)	85

Q3. ***Do most people in the village own the land they live on?***				
	Yes	**No**	**Left Blank**	***N***
C	43 (86%)	5 (10%)	2 (4%)	50
NA	5 (100%)	0	0	5
R	3 (50%)	3 (50%)	0	6
T	19 (79%)	3 (13%)	2 (8%)	24
Total	70 (82%)	11 (13%)	4 (5%)	85

Q4. ***Roof***			
	Yes	**No**	***N***
C	43 (86%)	7 (14%)	50
NA	4 (80%)	1 (20%)	5
R	3 (50%)	3 (50%)	6
T	22 (92%)	2 (8%)	24
Total	72 (85%)	13 (15%)	85

Q4. ***Walls***			
	Yes	**No**	***N***
C	36 (72%)	14 (28%)	50
NA	5 (100%)	0	5
R	3 (50%)	3 (50%)	6
T	22 (92%)	2 (8%)	24
Total	66 (78%)	19 (22%)	85

Q4. ***Shelves***			
	Yes	**No**	***N***
C	29 (58%)	21 (42%)	50

NA	5 (100%)	0	5
R	2 (33%)	4 (67%)	6
T	17 (71%)	7 (29%)	24
Total	53 (62%)	32 (38%)	85

Q4. *Floors*			
	Yes	**No**	***N***
C	34 (68%)	16 (32%)	50
NA	4 (80%)	1 (20%)	5
R	1 (17%)	5 (83%)	6
T	22 (92%)	2 (8%)	24
Total	61 (72%)	24 (28%)	85

Q4. *Electricity*			
	Yes	**No**	***N***
C	38 (76%)	12 (24%)	50
NA	5 (100%)	0	5
R	6 (100%)	0	6
T	21 (88%)	3 (12%)	24
Total	70 (82%)	15 (18%)	85

Q4. *Room*			
	Yes	**No**	***N***
C	29 (58%)	21 (42%)	50
NA	5 (100%)	0	5
R	1 (17%)	5 (83%)	6
T	9 (38%)	15 (62%)	24
Total	44 (52%)	41 (48%)	85

Q4. *Latrine*			
	Yes	**No**	***N***
C	32 (64%)	18 (26%)	50
NA	5 (100%)	0	5
R	4 (67%)	2 (33%)	6
T	18 (75%)	6 (25%)	24
Total	59 (69%)	26 (31%)	85

Q4. *Plumbing*			
	Yes	**No**	***N***
C	19 (38%)	31 (62%)	50
NA	3 (60%)	2 (40%)	5
R	1 (17%)	5 (83%)	6
T	7 (29%)	17 (71%)	24
Total	30 (35%)	55 (65%)	85

Q5. *Do most of the homes in your village have plumbing?*				
	Yes	**No**	**Left Blank**	***N***
C	17 (34%)	32 (64%)	1 (2%)	50

NA	1 (20%)	3 (60%)	1 (20%)	5
R	3 (50%)	3 (50%)	0	6
T	9 (38%)	15 (62%)	0	24
Total	70 (82%)	11 (13%)	4 (5%)	85

Q6. ***Do most of the homes in your village have electricity?***				
	Yes	**No**	**Left Blank**	***N***
C	39 (78%)	10 (20%)	1 (2%)	50
NA	5 (100%)	0	0	5
R	4 (67%)	2 (33%)	0	6
T	20 (83%)	4 (17%)	0	24
Total	68 (80%)	16 (19%)	1 (1%)	85

Q7. ***Would you or your group members be interested in larger loans, with longer re-payment terms to be used only for housing?***				
	Yes	**No**	**Left Blank**	***N***
C	42 (84%)	7 (14%)	1 (2%)	50
NA	3 (60%)	1 (20%)	1 (20%)	5
R	1 (17%)	5 (83%)	0	6
T	21 (87%)	3 (13%)	0	24
Total	67 (79%)	16 (19%)	2 (1%)	85

Q8. ***If someone fixes their home, would they or someone in the family do the actual building?***				
	Yes	**No**	**Left Blank**	***N***
C	23 (46%)	26 (54%)	1 (2%)	50
NA	4 (80%)	1 (20%)	0	5
R	2 (33%)	4 (67%)	0	6
T	17 (71%)	7 (29%)	0	24
Total	46 (54%)	38 (45%)	1 (1%)	85

Q10. ***Do you feel that loans are the best way to improve housing?***				
	Yes	**No**	**Left Blank**	***N***
C	35 (70%)	14 (28%)	1 (2%)	50
NA	3 (60%)	2 (40%)	0	5
R	6 (100%)	0	0	6
T	13 (54%)	11 (46%)	0	24
Total	57 (67%)	27 (32%)	1 (1%)	85

Table 1: International Housing Microfinance Products

Programme	*Loan Amount*	*Loan Term*	*Interest Rate (per annum)*		*Collateral*	*Other*
			Microenterprise	*Housing*		
ADEMI (Dominican Republic)	Up to $5,000	Up to 60 months	18-24%	N/A	Unsecured, guarantee of 10% of loan amount	
BancoSol (Bolivia)	Up to $10,000	Up to 60 months	32%	23%	Mortgage and personal guarantee	
CALPIA (El Salvador)		Up to 60 months	32%	23%	Mortgage, fixed assets, deposits	
CARD (Philippines)	Up to $350	Up to 3 years	20%	20%	Completion of previous loan cycle	
FUNHAVI (Mexico)	$500-2,500 (average loan: $1,623)	Up to 36 months	N/A	54%	Co-signer	FUNHAVI is strictly a housing MFI.
Genesis (Guatemala)		30 months	35%	25%		
Grameen (Bangladesh)	Up to $600	120 months	20%	8%	Completion of previous loan cycle	The low interest rate for housing loans is subsidized by the interest from its microenterprise loans.
Mi Banco/Mi Casa (Peru)		Up to 120 months	60-85%	50-70%		

Adapted from Escobar, Alejandro and Sally Roe Merrill in Daphnis, Franck and Bruce Ferguson, eds. Housing Microfinance: A Guide to the Practice. Tables 3.5, 3.6, and 3.7.

Table 2: Housing Microfinance Products in India

Programme	*Loan Amount*	*Loan Term*	*Interest Rate (per annum)*		*Collateral*	*Other*
			Microenterprise	*Housing*		
Kalanjiam Foundation (DHAN)—New Construction	Rs 20,000-45,000	Up to 13 years		12%	Unsecured, guarantee of 10% of loan amount	Administered through Federations' 'housing cells'
Kalanjiam Foundation (DHAN)—Upgrades	Rs 3,000-15,000	Up to 7 years		18%	Unsecured, guarantee of 10% of loan amount	Administered through Federations' 'housing cells'
SHARE Microfin—Upgrades	Rs 10,000	Up to 1 year	15%	15%	Unsecured, group guarantee, completion of 3 loan cycles	Funded through ICICI Partnership
SEWA Housing Loans—Paki Bhit	Up to Rs 25,000	Up to 5 years	17%	14.5%	Unsecured, 2 guarantors	Funded through housing finance institutions
Kudumbashree—Bhavanashree	Up to Rs 40,000	10-15 years	Depends on rate setting by Neighbourhood Groups	7.25%	Land and building; borrowers must have clear title deed and own >=1.5 cents of land	Funded by a number of public and private banks, including: State Bank of India, Canara Bank, Central Bank of India, Indian Bank, Syndicate Bank, ICICI Bank, etc.
Gram Vikas	Rs 10,000-40,000	Average of 15 years		9%		Loans funded by HDFC. Gram Vikas offers technical training, bulk materials purchase, etc.

Source: Compiled by Author from various sources

Table 3: Field Visit Chart

Region	Characteristics	Cost to Build House	Key Observations	Demand Indicators
Telengana	Very drought-prone	Rs 80,000-90,000	• In villages close to Hyderabad, most villagers had pucca houses and had already used income generation loans for improvements • In outlying villages, government subsidies have been promised and villagers are wary of debt	• Presence of housing emergencies • Diversion of income generation loans for home improvements
Rayalaseema	Drought-prone	Rs 1 lakh	• Some villagers had borrowed from moneylenders or used government subsidies to finance the construction of a new home • Many begin to build but cannot afford to finance the entire project, arresting construction • Masons hired for 25-30 of construction work • New concrete roof costs Rs 25,000	• Large loans available at higher interest • Incomplete construction projects
Coastal Andhra	Fertile	> Rs 1 lakh	• Villagers are prepared to take loans or sell cropland to finance construction of a new home • Roofs made of palm fronds must be replaced every 2-3 years, which costs Rs 3,000/- • Very few villagers live in the more primitive mud huts that were prevalent in Rayalaseema and Telengana	• Positive response at the mention of such loans • Annual costs of repairing faulty construction • Large loans available at higher interest • No other forms of subsidies or credit for housing construction /improvement

Table 4: Affordability Analysis

	Affordability Analysis								
	Improvement	Cost of Improvement	Interest Rate (%)	Monthly Payments (6 mo.)	Minimum Monthly Income Required	Monthly Payments (36 mo.)	Minimum Monthly Income Required	Monthly Payments (120 mo.)	Minimum Income Monthly Required
Telengana	Minor Improvements	5000	20	463.17	1543.91	185.82	619.39	132.47	441.56
	Mid-Sized Improvements	20000	20	1,852.69	6175.63	743.27	2477.57	529.88	1766.26
	New Construction	65000	18	5,959.20	19864.00	2,349.91	7833.02	1,171.20	3904.01
Rayalaseema	Minor Improvements	5000	20	463.17	1543.91	185.82	619.39	132.47	441.56
	Mid-Sized Improvements	20000	20	1,852.69	6175.63	743.27	2477.57	529.88	1766.26
	New Construction	65000	18	5,959.20	19864.00	2,349.91	7833.02	1,171.20	3904.01
Coastal Andhra	Minor Improvements	5000	20	463.17	1543.91	185.82	619.39	132.47	441.56
	Mid-Sized Improvements	20000	20	1,852.69	6175.63	743.27	2477.57	529.88	1766.26
	New Construction	65000	18	5,959.20	19864.00	2,349.91	7833.02	1,171.20	3904.01

	Monthly Income
Telengana	2440
Rayalaseema	2440
Coastal Andhra	3660