Rural microfinance between clients and financial markets

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Abstract
The current discussion on microfinance deals predominantly with institutions operating in urban or densely populated rural areas. This paper focuses on microfinance in rural areas that are agrarian based and less densely populated because access to microfinance services in these areas is still problematic. The role of microfinance for rural households is outlined in the context of monitisation and the integration of the rural economy into national and international markets. Of specific importance are the low and irregular incomes of a large proportion of the rural population resulting from a relative neglect of physical infrastructure, low levels of education and health services, and a dependence on unpredictable agricultural production. The provision of financial services under these circumstances requires microfinance institutions to pay specific attention to their organisation structure and mode of operation, and the design of financial products. The paper concludes with a discussion of microfinance and rural development and the importance of financial stability for microfinance institutions.

Key words: agriculture, credit, financing, markets, development.

1 Introduction

Microfinance has firm roots in agricultural credit and the "Spring review of credit programs to small farmers" (Donald, 1976) can be seen as marking the beginning of the international discussion on small-scale finance and development. The discussion has developed substantially since Donald's review with important theoretical insights being contributed by Bell (1988), Hoff and Stiglitz (1993), and Krahnen and Schmidt (1994) amongst others. The body of knowledge and understanding on microfinance has also been strengthened by contributions from the worlds of finance, banking, management and political science. Case studies have complemented these theoretical insights by documenting experiences in all parts of the world (Ledgerwood, 1999). "Microfinance" has gradually became an umbrella term for a wide discussion and - as the distinction between urban and the rural situations faded - critical differences have been overlooked. As a result current discussions are mainly on microfinance in urban and densely populated rural areas.

This paper deals with microfinance in less-favoured rural areas characterised by agrarian based economies and low population density. High transportation and transactions costs and co-variant risk are serious obstacles to establishing financial services in such areas. The purpose of this paper is to provide an overview of experiences and challenges in the efforts to expand the financial frontier of microfinance. It begins with a discussion of the position of microfinance in the process of rural transformation in developing countries. Conditions generally associated with the rural environment are analysed and their implications for the provision of financial services assessed. The abilities, limitations and desire of rural households to engage in relationships with microfinance institutions are

examined in detail and - together with the arguments developed earlier in the paper – this enables an identification of the challenges associated with establishing effective rural microfinance institutions. The paper concludes by examining the future of microfinance. It stresses the need for microfinance institutions to broaden their objectives and focus on financial stability.

2 The rural transformation

The position of microfinance in rural areas must be viewed in the context of the rural transformation that is underway in developing countries (Timmer, 1988). A major contributor to the transformation process forms the development and introduction of new agricultural production technologies. New technologies lead to higher productivity of the farmers' resources land and labour, require more and more diversified inputs and services, and result in a larger quantity of marketed output. The Green Revolution accelerated the process of technological innovation in the 1970s and made the transformation clearly visible in many rural areas, less in Africa but especially in Asia.

Agricultural production thus developed backward linkages with specialised services providers such as extension and veterinary agents and suppliers of fertilizer and hybrid seed. Forward linkages were also established with marketing, processing and transport agents as production increased. The consequences are a gradual incorporation of small-scale agricultural producers into national input and produce markets and the monitisation of agricultural production. For the rural economy in total it means an expansion of enterprises into industry and services sectors, and as rural cash incomes grow, increasing scope for retail trade in food, clothing, building materials and other consumer goods.

The process of rural transformation outlined above is not driven by technical developments in agricultural production alone because linkages with the national context are significant. First, employment opportunities in the urban sector or expectations of employment lead to a rural exodus. It is usually the young who leave the villages for the urban areas or for employment abroad. As a result the rural labour force is reduced with possibly adverse effects on agricultural as well as non-agricultural production. At the same time, however, successful migrants transfer money to their families. These remittances increase the rural purchasing power and enable investment in enterprises (Wouterse, 2006). However, transfers the other way round may also occur when employment in towns is interrupted, e.g. the closure of mines in South Africa, or when other calamities are encountered. When migrants return home they may become agents of change by introducing new ideas about consumption and production.

The development of demand for agricultural products in the urban areas is a second major linkage. Increasing demand for staple foods like grains and tubers enables production to expand and stimulates the development and acceptance of new technologies, with positive effects on rural employment and incomes. The development potential of increases in basic food production for rural areas is, however, limited as land holdings are small and the production value per unit of land low. Increasing demand for higher quality foodstuffs such as fruits, vegetables, dairy products, eggs and meat from a thriving urban population offers more scope for a substantial and continuous increase in rural incomes. These products offer a higher rate of return per unit of land and labour, which is important where land holdings are small and rural labour is relatively abundant (Jat et al., 2006). In addition, the specialisation and diversification in agricultural production creates new employment in marketing and processing.

A third linkage is the incorporation of the rural areas into national or even global spheres of influence. Radio, television and (mobile) phones as well political parties and even regional conflicts reduce rural isolation and shape the ideas, expectations and behaviour of both rural and urban populations.

Rural transformation led by new agricultural production technologies and rural-urban linkages requires and means quantitative and qualitative changes in institutions to support an increasingly complicated fabric of relationships between a growing numbers of specialised actors (Hayami and Ruttan, 1985). Microfinance may play a significant role in this process of institutional adaptation and change, as it is a non-specific institution that may serve a wide range of clients such as agricultural producers, traders and shopkeepers, local manufacturers, wage-earners and consumers. The majority of these people never had regular access to the few rural bank branches that were present in the more remote rural areas till the 1980s. Thereafter the situation changed in many countries: a) financial liberalisation on the one hand eliminated subsidised government controlled credit programmes that proved to be ineffective over and again, and on the other hand allowed financial institutions to set interest rates that covered the high costs of the small transactions required; b) insights gained in the 1970s showed that new approaches could reach low income households successfully (Moll, 1989; Yaron, 1992). Currently, a wide diversity of microfinance institutions operates in the rural areas of Africa, Asia and Latin America.

Despite the progress made in the past 20 years there are still many communities in less populated and less-favoured areas that remain outside the financial frontier of microfinance (Von Pischke, 1991). Specific attention for the circumstances in these areas and for the consequences for the provision of microfinance services is thus warranted

3 The rural environment and microfinance

3.1 Agriculture and the rural economy

Agriculture is still the core business of many rural societies and this affects the rural economy in specific ways. First, agro-ecological conditions determine the extent to which crop, livestock, forestry, and fishery enterprises can be developed. This leads to regional specialisation or at least to the concentration on a limited number of enterprises that give each region its unique character. Second, the agricultural calendar with its regular and recurring planting, maintenance and harvesting periods leads to similar cash flows for farmers and for agents involved in backward and forward linkages. Third, variations in crop yields or prices may cause the incomes of a large proportion of the rural population to fluctuate unpredictably. These fluctuations can be substantial and may lead either to crisis situations or periods of relative affluence. The consequence of a dependency on agriculture is a rural economy with predictable seasonality in activities and financing requirements and unpredictable fluctuations in rural incomes from year to year. In addition, there may be long-term negative trends in major agriculture enterprises that will have a serious impact on rural economies that lack the resources to switch to other, more attractive enterprises.

3.2 Physical environment

Population density in rural areas can range from a few to several hundred persons per km^2. The question of how many potential microfinance clients live within an acceptable distance from the microfinance retail point is therefore an important one. The state of physical infrastructure such as roads, bridges, and (mobile) phone networks is thus of direct concern

for rural microfinance institutions because they determine the transport cost and time involved in transactions for both staff and clients.

The physical infrastructure in a wider sense such as market places, warehouses, electricity, and water supply affect rural incomes, savings capacity and investment possibilities and thus the scope for microfinance institutions. National policies determine the proportion of public funds allocated to physical infrastructure in rural areas with a direct effect on the entire rural economy.

3.3 Institutional environment

The functioning of the markets for agricultural inputs, products and services such as financial services, extension services and animal health services is the core issue of agricultural policy in many countries. There is widespread consensus regarding the importance of well-functioning markets for the development of agriculture and the rural areas in general. Transaction cost literature provides new and valuable insights into the functioning of markets and there is a wealth of case studies available. However, there is a wide variation in the way insights are interpreted and remedies proposed. The debate on liberalisation - *state or market* or *state and market* continues in many countries (Tilburg et al., 2000; Jayne et al., 2002), leading to policy changes as well as the reversal of policy changes. Despite discussions and policies many farmers in developing countries, especially those in the more remote rural areas, still do not have reliable access to input and produce markets with negative consequences for agricultural production and farmers' incomes.

Land markets in rural areas typically operate in a dualistic manner with the formal law on the one hand and the traditional practice on the other hand. Security of individual tenure or regulated access to communal resources based either on law or on tradition provides incentives for maintaining or improving the productive capacity of land and water resources. Land policies that provide or support security of tenure form a basis for long-term agricultural and rural development.

Rural financial markets are composed of formal institutions, informal intermediaries and enterprises and households demanding financial services as well as financial relationships based on reciprocity. Studies of rural financial markets have shown a limited presence of formal institutions such as banks on the one hand and a rich variety of informal financial arrangements between individuals and groups on the other. A major characteristic of the rural financial market is segmentation: financial institutions provide services to only one specific group of households (Moll et al., 2000). Thus, commercial banks offer a range of services to traders and salaried workers; cooperatives offer savings services and possibly some credit to their members, and informal financial institutions provide credit to small groups of people living in the same neighbourhood. This segmentation results in a large proportion of the rural people being excluded from formal financial services. Hoff and Stiglitz (1993) focus on imperfect information as an explanation for this exclusion and for other shortcomings prevailing in the rural credit market.

Transactions, trade and institutions

Apart from barter trade, transactions by households or traders include the exchange of a product or service against a financial compensation. Transactions may be immediate (cash or bank payment) or the consequence of a forward contract which requires that contract partners trust that the transaction will be completed as agreed upon with respect to quantity, quality and delivery on a specified date in the future. In a supply chain or value chain value is added to a product in subsequent stages from primary producers, through intermediaries and/or

processing firms, to the final consumer (Van Tilburg et al., 2007). The flow of products in a value chain is associated with a flow of finance in the opposite direction.
Credit is involved in all cases of advance delivery of products or services or advance payment. For example, farm inputs are delivered before the growing season, payment will follow after the harvest; a down payment is required for a future delivery. In case goods are ordered or delivered on credit, some form of collateral is required. Collateral can be in the form of physical or financial assets, or it can be replaced by trust that the contract partner will adhere to the conditions of the contract.
The intimate relationships between transactions and credit imply that well functioning product and credit markets and institutions are required to foster trade and, consequently, economic development. A lack of (proper) market institutions implies that transaction costs will be higher than optimal and, consequently, will make profitable trade less feasible or likely.
The focus in this paragraph is on market institutions where, as in the credit market, a distinction can be made between formal and informal market institutions. Examples of formal market institutions which facilitate transactions and trade and reduce search costs, negotiation costs, or enforcement costs are:

- Availability of, and access to, markets for farm inputs and farm outputs.
- Standardisation of products or product classes, weights and measures, as well as standard contracts to lower both search and negotiation costs
- Market information services to enhance market transparency and to reduce search costs.
- Institutions to reduce costs of enforcement of contracts, for example, procedures for arbitration, or courts that are accessible, efficient, and not corrupt.
- Availability of, and access to, trade credit to lubricate transactions and trade.

When formal institutions are not available or do not operate properly, informal institutions can reduce search costs, negotiation costs or enforcement costs (e.g. Fafchamps, 2004). Formal market institutions can, to a certain extent, be replaced by:

- Hunan and social capital in the form of trust, reputation and network ties.
- Precautionary measures such as visual inspection of products before purchase and demanding a down payment from (potential) buyers.

Public services in health and education are usually at lower levels and with less depth in rural areas than in urban areas with as consequences a lower overall education level and more serious effects when health is impaired. Health risks combined with the absence of formal (health) insurance and a low level of wage employment with social security provisions means that large sections of rural society depend on informal institutions when problems arise. These informal, mostly local, institutions can be effective in as far as idiosyncratic risks are concerned but they are inadequate when it comes to dealing with co-variant risk.

Other aspects of the institutional environment such as personal and property protection and access to the judiciary system are often the same for both rural as urban dwellers. For example, the staff of microfinance institutions – whether urban or rural based – are equally dependent on the degree of police presence for transporting cash or protection of their offices against burglary. Insufficient protection by police will lead to higher costs and - in extreme cases - to absence of formal financial services in risk-prone areas.

3.4 Conclusions

This general overview of the main features of the rural environment leads to a number of conclusions regarding the supply of financial services in rural areas.

Loans should be designed to fit the agricultural enterprises of a region both in terms of timing and the amount of finance required. Specific attention should be given to the co-variant risks associated with the agricultural enterprises and to the fact that a large proportion of clients in a given area will have similar cash flows. The latter requires attention for liquidity management to avoid seasonal shortages or excesses. These three consequences are especially relevant in areas where agriculture is the dominant economic sector.

The cost of transport and information are high in rural areas. This in combination with the small size of individual microfinance transactions leads to high transaction costs for microfinance institutions and their clients.

Establishing microfinance institutions in rural areas means adding to the existing formal and informal institutions operating in the rural financial market. In order to become an accepted and respected partner, the microfinance institution must compete with the established institutions.

This overview of the rural environment pinpoints the importance of public services in the health, education, infrastructure and law enforcement sectors. The policy environment in which rural markets operate is extremely important because public services and policies impact on the rural economy as a whole and therefore have a direct effect on the way in which financial arrangements are structured and operate.

4 Rural households and enterprises: the demand for microfinance services

Figure 1 provides a general overview of the relationships between rural households and the markets for goods and production factors.

Figure 1. Rural household and the economic environment

Household resources such as land, labour, livestock and implements are stated as productive assets as they have a production value for the household and are related to enterprises. Non-productive assets such as gold, jewellery and consumer durables have no production value (although they do have a consumption value) but have a liquidity value which is dependent on accessible exchange or market possibilities and the transaction cost involved in their conversion into cash. The third type of assets - cash - can be used directly for production and consumption purposes without transaction costs. Debts and claims result from financial relationships with the various institutions operating within rural financial markets. Potential financial relationships lead to the existence of a credit reserve, i.e. the volume of credit that lenders are prepared to supply on the basis of their perception of the borrowing capacity of the household. This credit reserve, stated as "credit" by Baker and Bhargava (1974), can be used to secure loans without actually disposing of productive or non-productive assets and must, therefore, be considered a liquid asset.

Assets can be utilised for economic enterprises inside or outside agriculture. A division of rural households according to their (main) enterprise has little relevance as household members are often engaged in enterprises in agricultural, trading, service and small-scale industrial sectors, either as entrepreneur or as employee and often on a seasonal or part-time bases. Studies show that as much as 50% of "farm" household income is derived from non-agricultural enterprises (Haggblade et al. 2002). Some members of rural households, for example, may have migrated to the urban areas but continue to maintain their household "membership" and their claim to household resources through remittances and periodical visits. The income of rural households is usually partly in kind (from agricultural enterprises) and partly in cash.

Rural households face at least two major concerns in their daily struggle to survive. First, they must safeguard consumption in the face of seasonal or irregular incomes and shocks. Households develop a range of strategies that include ex ante measures such as saving internally or externally and ex post coping mechanisms such as borrowing, increasing the amount of labour invested in their own enterprises or seeking employment elsewhere. The widespread desire of households to save has been extensively discussed from many points of view. To mention a few: Carroll (1997) developed a buffer-stock saving version of the Life Cycle/Permanent Income Hypothesis; Morduch (1995) discusses a range of risk coping mechanisms including saving and borrowing; Kochar (2004) includes ill-health in the analysis of savings and portfolio choices; Moll (2005) discusses the role of livestock in saving and insurance and Ndirangu (2007) elaborates the effects that shocks arising from ill-health and weather variability have on savings behaviour and labour input.

A second major concern refers to the financing of enterprises. Short-term lending can be used to finance production inputs or trading stocks if own resources fall short of requirements and medium-term lending is required for investing in the expansion of enterprises.

In conclusion, it can be stated that rural households have diverse financing requirements and a portfolio of financing options through internal rearrangements of assets as well as through external relationships. However, financing requirements in terms of amount and tenor are often larger than the internal possibilities and the external (informal) options available. In such situations access to microfinance services provides a welcome addition. Reliability of access and flexibility in tenor, size and the repayment conditions attached to loan contracts determine whether microfinance services are more attractive to rural households than the other financing options available.

5 The challenge of rural microfinance institutions

Rural microfinance institutions may operate in one area only as independent unit banks without a branch network such as the People's Credit Banks in Indonesia (Sunarto, 2007) or as a multi-tier organisation with a head office in the capital, provincial offices and retail offices in rural areas. The central difference refers to the handling of regional co-variant risk and when agriculture is dominant an institution with presence in more regions has a major advantage in this respect.

The focus in this paper is on the retail unit of microfinance institutions as at this point institution and rural households decide whether or not to establish and maintain relationships, the core issue in this discussion on expanding financial services into less-favoured areas. The structure of the discussion is depicted in Figure 2.

Figure 2. The relationship between rural microfinance institution and rural households

The starting point is the retail unit of the microfinance institution where two internal policy issues - organisation structure and method of operation - determine its capacity to offer financial products. Rural households have been discussed in the previous section and their abilities and wishes are used in the discussion of financial products in this section. The performance of the microfinance institution is measured along two central objectives - financial sustainability and outreach - while the effect of the financial products on the rural households is captured under impact assessment.

5.1 Organisation structure and operations

Rural microfinance institutions operating in less densely populated areas face high delivery costs per transaction because of travel costs incurred between retail unit and client. These costs are in addition to those incurred in dealing with the standard microfinance problems of information asymmetry and the difficulties of handling small transactions efficiently. Managing high delivery costs requires responses in organisation structure and in the way operations are conducted at the retail unit where staff and clients have the most direct interaction. A variety of organisational structures and operations have been developed to meet different circumstances.

a) Retail office with counter services and field staff
The retail unit is located in a rural centre and consists of a permanent office with some staff members in charge of counter services and with field staff equipped with motorbikes or cars. Clients visit the office and transactions are dealt with in the office. Field staff may visit clients on their premises to appraise and monitor activities and for contract enforcement.

This option is suitable in rural areas where clients are concentrated around a rural centre and there is a transport system that enables them to visit the retail office. The BRI Unit Desa in Indonesia operates with this combination of organisational structure and mode of operation in the densely populated areas of Java and Bali, but also in the much less densely populated islands east of Bali (Ibrahim, 2004; Robinson, 2004; and, Mauer, 2004).

b) Mobile office with counter services and field staff
The mobile retail unit is housed in a van that moves to different locations according to a fixed schedule. Some staff members are in charge of the counter services and others operate with motorbikes or cars. Clients visit the mobile banking unit at designated opening times and transactions are dealt with in the mobile unit. Field staff may visit clients at their premises to appraise and monitor activities and to enforce contracts.

In situations where the volume of transactions does not justify a permanent office, a mobile unit is an interesting option. If transactions expand, a permanent retail office can replace the mobile unit. The Equity Bank in Kenya operates with mobile offices for one, two or three days a week in one location in order to explore market conditions in new areas.

c) Retail office without counter service and with field staff.
The field staff operates from an office that may simply be one room in an office building at a central location. Various ways of operating are possible with this organisational structure:

- Field staff visit individual clients at a specified time at their premises and transactions are dealt with on the spot;
- Field staff visit groups of clients at a specified time and at a specified place and transactions are dealt with on the spot;
- Field staff provides counter services at pre-determined places and times and clients come as and when necessary.

These possible combinations are suitable in situations where clients are dispersed over a wide area either because population density in the region is low or because operations have just started. Examples of these types of operations can be found in many places and include the Grameen Bank and the many microfinance institutions that use group approaches such as the Kenya Women Finance Trust.

The approach of microfinance institutions towards either individuals or groups of clients requires elaboration as the content of the respective relationships differs. Individual clients receive information on financial products, whereupon they may decide to apply for a loan.

The microfinance institution then starts the lending cycle: client screening and loan assessment, monitoring and loan collection. The relationship with groups usually contains training followed by guidance and control of the lending operations that are partly or totally conducted by the group. For the microfinance institution the dealing with groups instead of individuals may or may not outweigh the additional training, monitoring and control costs. The cost for the groups in terms of time spent on training, management and internal discussions is often high, with the lion share for a few office bearers. Case studies regarding the advantages and disadvantages of group approaches vis-à-vis individual contacts between client and organisation show a varied pattern of consequences, see Giné and Karlan (2006) and Dellien et al. (2005), for example.

Technological developments have a positive affect on the provision of financial services in rural areas. Mobile phone networks greatly facilitate contacts between clients and microfinance institution. The use for information exchange is the first obvious application, but mobile phones in combination with personal identification codes are also being used for money transfers.

A second development is the use of portable computers by field staff in their contacts with clients. Financing options with repayment schedules can be shown and discussed on the spot and transactions can be administered efficiently (Barton, 2004).

Other developments such as providing members or clients with swipe or smart cards will further improve information exchange and transaction efficiency and open up new possible combinations of input supply, financing and marketing (Campaigne, 2004). These recent technological developments can contribute to mitigating the information problems and thus reducing transaction costs.

5.2 Financial products

The development of financial products capable of addressing the expected and unexpected financing requirements of rural households is a serious challenge for rural microfinance institutions (Evans and Ford, 2003). The overview of the rural environment provided in Section 3 and the discussion of the rural household in Section 4 indicate that a “one-size-fits-all” type of product is inadequate. To meet potential demand a combination of several services may be needed. Some examples are outlined below.

- Saving accounts without restrictions with regard to size of deposits and frequency of withdrawal (Maurer, 2004).
- Seasonal credit in line with the agricultural season, which could mean loans for a period of six to nine months. These loans - with one repayment after a relative long period - are more exposed to moral hazard and enforcement problems than the usual trade loans with weekly instalments. Maintaining contact with borrowers during the lending period is, therefore, necessary to reduce the possibility of moral hazard and to assess repayment possibilities in case enforcement measures are required.
- Short-term emergency loans. Absence of insurance turns credit into a coping mechanism that may enable rural households to deal with shocks without reducing their productive assets and future earning capacity.
- Short-term loans to meet cash-flows problems. These loans are usually very productive because the marginal value of capital can be high: no credit means an opportunity lost. This applies to trade as well as to agricultural enterprises.
- Investment loans for a period of one to three years. This type of loan can finance the expansion of production capacity inside and outside agriculture. Whether or not these loans are actually required will depend on the specific circumstances involved: reliable access to short-term loans might reduce the need for investment loans as own capital can

be directed towards investment while access to the short-term loans is kept (costless) as a financing option.

- Money transfer services. Links with national and international money transfer services bring these services to rural households.
- Insurance. An increasing number of insurance programmes in health, agricultural and life insurance have been developed, but the outreach is still very limited.

The provision of a range of products has advantages for microfinance institutions. Being able to meet the diverse requirements of rural households makes the relationship more valuable and acts as an additional incentive for correct repayment of loans. Serving more types of clients means that risk is spread over different types of people and economic sectors. Combining services can also lead to economies of scope as both staff and funds can be more efficiently utilised.

5.3 Financial products and contract farming

Agricultural production can give rise to problems for both financial institutions and farmers, but it can also offer specific opportunities. The production chains of some agricultural commodities provide unique possibilities for the provision of credit. The commodity chains of milk, cotton, sugar and tea in particular require that the primary products - milk, seed cotton, sugar cane and tea leaves, respectively - be processed in comparatively large-scale factories. Moreover, the time between milking or harvesting and processing must be short to maintain product quality.

This technology-determined linkage between primary production and processing enables processors to provide finance and inputs to smallholder farmers at little or no monitoring and enforcement costs because product delivery is secured. Co-operatives, state and private enterprises in many different countries, under a wide variety of circumstances, organise production, transport and processing in these chains with smallholder farmers either as members or contractors (Sartorius et al., 2004). In this way membership or contracts with processing enterprises offer smallholders the possibility of participating in modern production technologies and, at the same time enables processors to align processing with product supply. The efficiency gained by integrated production and processing offers advantages to all parties concerned provided monopoly positions are either avoided or not used for unilateral benefit.

5.4 Performance

Performance is generally measured according to the financial and social objectives of financial sustainability and outreach.

The basic data needed for financial analysis are provided in annual financial statements with the profit and loss statement showing income and expenditures and the balance sheet indicating assets, liabilities and equity. Prior to financial analysis, this basic data might require adjustments as far as loan portfolio quality and the value of fixed assets are concerned. Adjustments are especially relevant for finance institutions operating either without or under minimal financial legislation as standard rules for writing off loans and depreciation of assets might be neglected.

The aim of the –adjusted - profit and loss statement analysis is to assess financial sustainability (Yaron, 1992). The first step in sustainability analysis is to determine the net operating margin: income minus actual operating and financing costs. If this margin is positive the institution complies with the first condition of sustainability: operational sustainability. The second step deals with whether or not the real value of the equity can be maintained. In this step

the imputed financial cost is determined with either the inflation rate or the opportunity cost of capital as a bench mark. If the net operating margin is sufficient to cover the imputed cost of capital, the institution is financially sustainable.

Outreach is generally measured in terms of numbers and types of clients and the scale and depth of outreach (Ledgerwood, 1999). Financial institutions generally have data on the number of savers and lenders together with the volumes of savings and credit products provided. Annual data on new clients and clients leaving are generally not provided although such data over a period of years will show whether or not a microfinance institution can maintain clients. Client data related to the number of households present in a certain area provides insight into the proportion of rural households reached. If qualitative data are available on clients and rural households in general, it is possible to determine which segment(s) of rural households are actually served by individual institutions. The latter information is relevant to assess claims that "the poor" are reached.

5.5 Impact assessment

Impact assessment has become an intrinsic part of the international discussion on microfinance currently being waged by donor agencies, microfinance institutions and national governments. The claim that microfinance interventions can play a significant role in the struggle against poverty and the willingness of donors and governments to fund microfinance initiatives have inevitably lead to the requests for proof of its effectiveness. Impact evaluation in this case goes beyond an analysis of depth of outreach because the purpose of the assessment is to determine the effects of microfinance services on the situation of "the poor".

The discussion of the rural households in Section 4 provides a first insight into the methodological problems of such impact assessments: microfinance lending must be distinguished from other actual or potential sources of finance, and the effects of microfinance lending on production and income must be established. Hulme (1997) provides an overview of the methodological and practical issues involved.

Leaving methodological issues aside, impact studies have brought forward three (potentially) positive effects of microfinance interventions. First, access to microfinance leads to an increased capacity to deal with risk because it provides access to savings or credit when emergency strikes. This may mean that farm households no longer have to sell productive assets such as machinery, inventory, land and livestock to meet emergency needs. Their income generating capacity in the longer term will, therefore, not be negatively affected. Second, microfinance can ensure that even in difficult circumstances farm families are able to maintaining an adequate diet and remain able to work (Pitt and Khandker, 1998). This is of major importance as wage labour is often the main source of income in low-income households. Third, increased opportunities to invest in productive enterprises have been observed.

The discussion on impact focuses almost entirely on the effects of the relationships between microfinance institution and clients over a period of several years. A long-term perspective on the effects of microfinance for the development of rural areas is provided in the next section.

6 The development of microfinance in rural areas

6.1 Establishment and expansion

The first microfinance institution entering a rural area generally meets with a large demand for their financial services. Part of this initial demand may be based on false assumptions, but information spreads quickly and soon policies and products are understood. During the establishment period the emphasis of both institution and clients is on access, and less importance is attached to interest rates. In this pioneering period interest rates on loans of 25 to 40% on an annual basis are acceptable for clients and necessary for institutions that operate with little information on clients and enterprises. After having operated for some time a microfinance institution will have built up a portfolio of trusted clients, increased its insight into local rural enterprises, and expanded the volume of services.

Other microfinance institutions or rural banks with a different client focus and other types of operation may enter the same area and show a similar pattern of development towards more clients and new products. As a result competition will gradually develop. This competition together with the increased volume of information on rural clients and their enterprises will induce and enable all microfinance institutions to become more efficient and reduce interest on loans. Interest rates and innovative and attractive products become major weapons in the competition to attract new clients and retain the current ones. A well-known strategy, for example, is to start with group loans and then expand to individual loans for those group members who have developed specific requirements and have shown particular abilities. If these clients are not offered individual loans they may approach other microfinance institutions or rural banks showing their track record.

The establishment and expansion of microfinance in rural areas thus has quantitative and qualitative dimensions: more clients and more types of services. For microfinance institutions this requires continued internal assessment of organisation structure, operations, and financial products, and regular adjustments are required to remain in business and flourish.

In a wider sense microfinance institutions may play another pioneering role in the rural institutional landscape. Microfinance institutions are often the first formal institution coming from outside that deal with people on a contractual basis with mutual confidence as basic condition. This differs fundamentally from government and non-government agencies that provide health, education or religious services free of charge or on the basis of voluntary contributions. The contractual dimension in the relationship between microfinance institution and the rural population requires specific attention in the establishment phase to reduce gaps in information and expectation.

6.2 Impact in rural areas

Extrapolating the effects of microfinance on individual households to rural areas as a whole will provide some indication of the overall effect of providing wider access to financial services. Increasing the capacity of the individual to deal with shocks will reduce the effect of co-variant shocks on rural communities when a substantial proportion of the population is within the financial frontiers of the microfinance organisation. Further, increased saving in the form of financial assets will mean a shift away from storing wealth in non-financial assets that have zero or low productivity. Financial savings become available for investment in agriculture, in agriculture-related trade and processing as well as a host of other enterprises and this can be expected to lead to technological progress and a growth of rural employment. The availability of capital for new, trustworthy clients with productive enterprises will have a

fundamental affect on economic relationships in rural areas. Rajan and Zingales (2003) state: "a healthy financial system can be a powerful anti-monopoly tool, providing the lubrication for the emergence of competitors that can undermine the power of incumbent firms". In this way microfinance can positively affect economic life in rural areas and an expanded outreach will make these effects more visible (Moll, 2006).

At a later stage, when remunerative investment opportunities in rural areas become limited and the volume of savings overtakes the volume of credit (Khan Bank, 2007), excess capital can be channelled via microfinance institutions and the national banking system to urban areas where large-scale industries and services offer extensive investment opportunities. In this way, rural savers will benefit from their investments and the children of the rural savers might find the urban jobs they are looking for when they migrate.

The process of financial development at national level has been studied by Shaw (1973) and McKinnon (1973) and described as financial deepening. The shift towards saving in the form of financial assets, the subsequent intermediation by the banking system and investments by borrowers are central to their theory. In this way microfinance in rural areas can lead to financial deepening by providing rural households with access to savings and credit through local intermediation. Empirical studies of the relationship between “financial deepening” and economic development will become possible in rural areas where microfinance institutions have been operating for a prolonged period and have involved a substantial and increasing proportion of rural households in their activities.

7 Microfinance in rural areas and beyond

This overview of microfinance in rural areas has been concerned with the specific conditions that prevail in rural areas and the effect these have on the demand for and supply of microfinance services. Millions of rural households are still outside the reach of microfinance, but wide experience, only indicated by the case studies quoted above, shows that in a wide variety of situations microfinance institutions and rural households have developed productive financial relationships. This means that microfinance institutions have found combinations of organisation structure, operations and financial products that comply sufficiently with the possibilities and priorities of rural households. In this sense experience provides guidance for the establishment of retail units in new rural areas. Once microfinance institutions have overcome the initial problems of operating and have established a foothold, the usual performance parameters - outreach and sustainability - should be re-assessed.

Outreach must be considered in both quantitative and qualitative terms: more clients, new clients that are more difficult to reach, and more diversified financial services that not only meet the needs of current clients but also address the needs of new and emerging clients. Expanding outreach in this way requires continuous attention to the specific conditions of the rural area concerned and the potential clients. Organisation structures, operations and new products will have to be designed with this context in mind. This overview aims to provide some guidance as to how this process can be managed.

Sustainability in the sense that all cost can be met by returns is not sufficient in the long run. The focus should be on financial stability as shocks, either man-made or as result of natural disasters, are part of life (Caprio and Klingebiel, 1996). Microfinance institutions have an obligation towards their clients to continue operations, especially in adverse circumstances. Stability is partly an internal matter and discussions along the lines of "What do we do if ..…" should result in provisions and scenarios capable of dealing with foreseeable shocks. External relationships are also important and linkages established with national and

international financial markets can be effective when rural communities, and thus rural microfinance institutions, are faced with adverse conditions.

Expanding outreach by overcoming the specific difficulties related to providing services in rural areas, and financial stability to safeguard the established financial relationships thus become the objectives of successful rural microfinance institutions.

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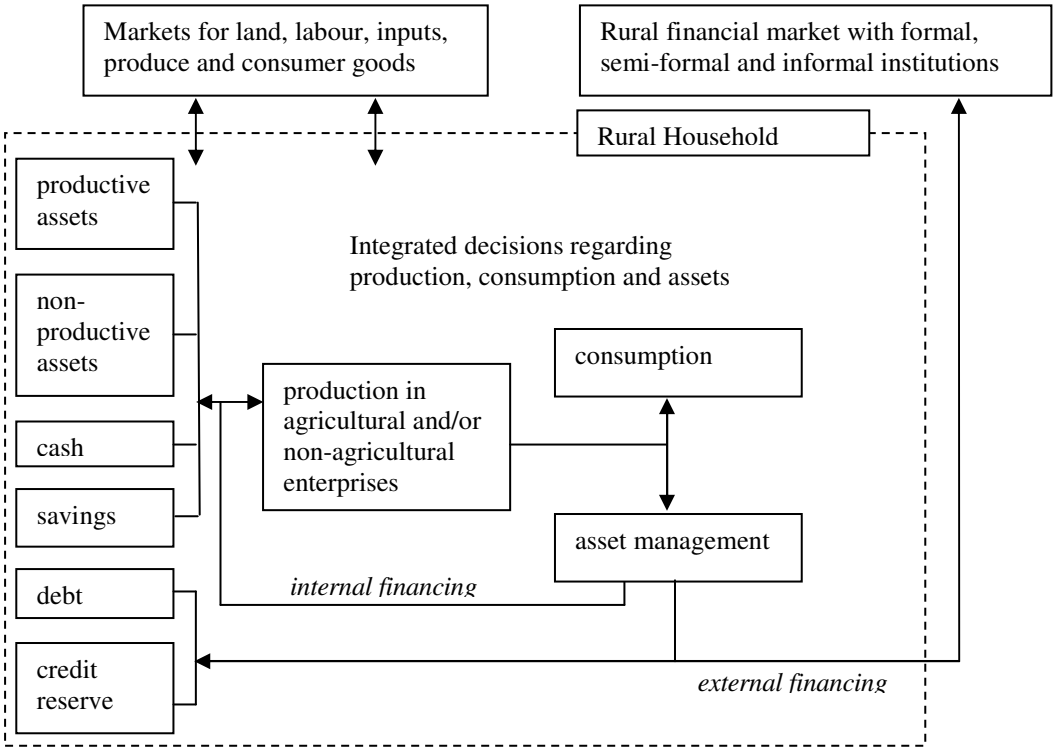

Figure 1. Rural household and the economic environment

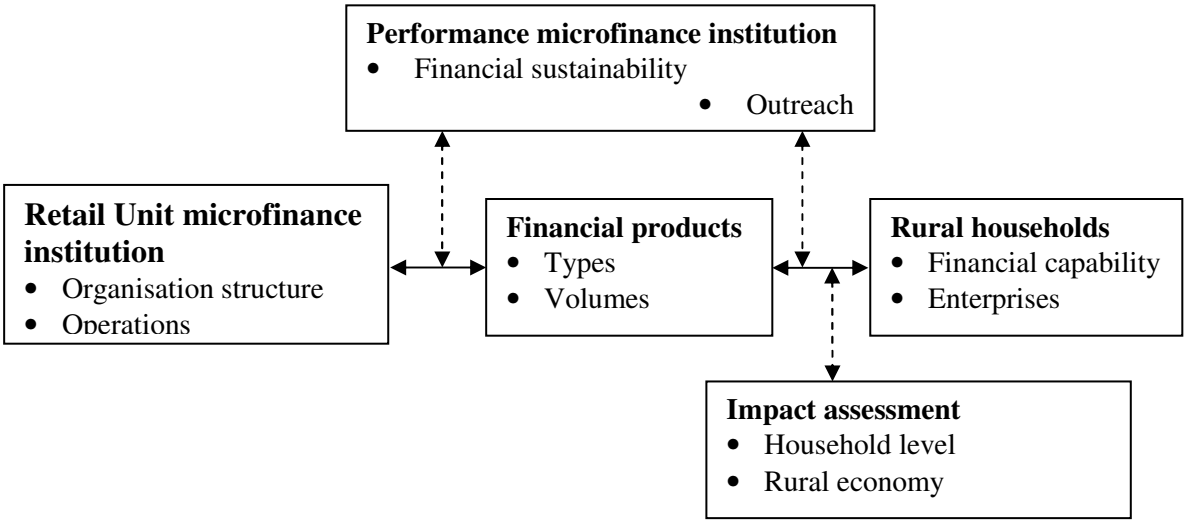

Figure 2. The relationship between rural microfinance institution and rural households