

Models of Rural Finance Institutions

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Manfred Zeller  
Professor and Director of the Institute of Rural Development,  
Georg-August-University Göttingen, Germany

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**Institute of Rural Development**  
**Waldweg 26**  
**37073 Göttingen, Germany**  
email: [m.zeller@agr.uni-goettingen.de](mailto:m.zeller@agr.uni-goettingen.de)  
Web : <http://www.gwdg.de/~uare>

# 1 INTRODUCTION<sup>1</sup>

## 1.1 Purpose and outline of paper

This paper describes different models of rural finance institutions, and examines their comparative advantages as well as related challenges to and strategies for deepening rural financial systems. A greater emphasis is given to microfinance, and the paper addresses other institutions under a rural financial systems perspective as well.

This topic requires to first describe different types of informal financial institutions and their strengths and weaknesses, and to discuss objectives of rural finance policy within the broader framework of development policy and goals. Chapter 3 compares the main characteristics of rural as opposed to urban environments. This serves to highlight the specific constraints and issues of rural and agricultural finance. Chapter 4 presents different models of rural financial institutions. In view of the specific characteristics of rural areas and of agriculture, and in view of multiple policy objectives, I seek to highlight comparative advantages of different institutional models, and discuss challenges to and strategies for sustainably enhancing access of rural populations to financial services. This paper is not about which type of institution is better or worse for a particular target clientele in a particular operating environment. Indeed, one of the major recommendations of this paper is that there is no blueprint for rural finance. Institutional diversity is desired to enhance competition, depth and breadth of outreach, and welfare impact. I further discuss in chapter 4 the transferability of existing microfinance best practices to rural and agricultural contexts. Chapter 5 summarizes major conclusions. What follows next is a discussion of motivations for a renewed interest in rural and agricultural finance that serves as background to the paper.

## 1.2 Why is there a renewed interest in rural and agricultural finance?

Since the widespread recognition in the mid-1980s of the failure of the old paradigm of directed agricultural credit with subsidized interest rates, rural and agricultural finance kept a low profile on the agenda of many governments and donors. One can now notice a renewed interest by policymakers, donors, and international development organizations in rural as well as agricultural finance. During recent years, major development organizations have published new strategy papers on rural and agricultural finance (see Wenner, 2002, FAO 1998, Klein et al., 1999; and IFAD, 2000). Overall, the new strategy documents are cautious in nurturing the idea of promoting rural and agricultural finance, and are well aware of past failures.

One may see three principal motivations for this renewed interest.

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**Decline in formal rural and agricultural credit supply.** First, with the dismantling of government and donor support to subsidized agricultural finance starting in the mid-1980s, and in conjunction with structural adjustment programs delinking and privatizing supply of agricultural inputs, marketing of agricultural produce, and provision of credit previously given by parastatal organizations in many countries, the supply of formal rural and agricultural credit appears to have considerably declined. Little is known of how much of this commonly perceived decline of state-driven credit has been compensated for by an increase in informal credit by traders, agribusiness firms and informal savings and credit groups<sup>2</sup>. In most developing countries, commercial banks have not entered the rural and agricultural credit market in any substantial scale. After liberalization, some commercial banks actually closed rural branches (Wenner, 2002). Macro-economic stability, sound legal frameworks, and financial sector liberalization are necessary, but not sufficient conditions for expanding the financial frontier. Few developing countries, mainly in North Africa, the Middle East, and South and East Asia (Steinwand 2003), such as Egypt, China, India, and Pakistan, continued with their state-owned subsidized rural banking infrastructure (Zhu et al., 2002; Meyer and Nagarajan, 2000; Ali et al., 1994; and Sharma et al., 1999). Other countries experienced successes because they transformed their agricultural development banks with a focus on designing demand-oriented services and recovering costs, such as is the case with the Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand and the micro-banking system of the BRI in Indonesia (Yaron 1992; Yaron et al. 1997, Patten et al., 2001). Today, it is still important to recall why these institutions need to be either dismantled or transformed. Indeed, repeating the same mistakes would be a waste of scarce resources<sup>3</sup>. *I therefore begin up front with a recommendation: We have to learn from the past failures of directed, subsidized agricultural credit programs even if these failures have been documented many years ago. This knowledge is still relevant today.* Yet, the decline in rural and agricultural credit is viewed by many as disconcerting, and questions naturally arise whether it could be done any better in the future.

**Role of rural finance for agricultural and economic growth, food security and poverty reduction.** Second, while agriculture is, relatively speaking, a declining sector in the course of development, in many developing countries it is still a leading economic sector, the main exporter, and the major employer, especially for the poor and women. Improved financial markets accelerate agricultural and rural growth. Financial services assist households in maintaining food security and smoothing consumption, thereby safeguarding or enhancing productivity of labor, the major production factor of the poor (von Braun et al. 1992; Heidhues, 1995; Murdoch, 1995; Zeller, 1995; Zeller et al., 1997; Zeller, 2001). Because of agriculture's strong forward and backward multiplier

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<sup>2</sup> Two studies, each covering four African countries, have not identified any effects of financial liberalization on the price and availability of informal credit (Mosley, 1999; and Steele et al., 1997).

<sup>3</sup> For a comprehensive critique of the old paradigm of subsidized and directed agricultural credit and on changes in paradigms and views, see Adams (1988); Adams, Graham, and von Pischke (1984); von Pischke and Adams (1980), Adams and von Pischke (1984), Krahen and Schmidt (1994), and Meyer and Nagarajan (2000).

effects for the overall economy (Mellor, 1966), economic growth in agriculture - especially in subsectors that directly or indirectly benefit smallholders, tenants, and wage laborers- is a key precondition for overall economic growth and poverty reduction. At present, most of the poor still live in rural areas.

Any student of an introductory course in micro-economics or development economics learns that access to savings, credit and insurance services can have beneficial effects on households and their enterprises and therefore on economic growth, and that microfinance in particular may also contribute to a more equitable growth. Access to credit, however, has only an economic benefit if and when that access generates broadly defined net economic surplus after having deducted the private and social costs of loan provision (including the opportunity costs of scarce public funds in alternative poverty reduction policies). While the evidence on impact of credit on household welfare, agricultural technology adoption, and on agricultural sector growth is mixed<sup>4</sup>, we should not overrate here the practical constraints (i.e. time and money) and methodological difficulties of the social science profession in estimating the impact of a policy or project with a reasonable probability of error<sup>5</sup>. Simple common sense tells us that savers who continue to deposit money for different motives, borrowers who continue to repay their loans, and clients paying regular premiums for health and life insurance over long periods actually derive an economic benefit.

**Doing better this time?** Third, and possibly most important, the hope of being able to do it better this time clearly comes from our recognition of the financial sustainability of a small, but increasing number of microfinance institutions (MFIs) and their considerable achievements in reaching large numbers of relatively poor women and men. Successful MFIs (some for example featured in the *Microbanking Bulletin*) already operate – at least partially – in rural areas albeit much of their lending is for non-farm enterprises<sup>6</sup>. There is also more hope this time around because of more suitable conditions in the macro-economy and the agricultural sector in many countries (see

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<sup>4</sup> Mixed means that the literature reports positive, negative, or no significant impact of access to credit on household welfare. For a recent review on credit impact assessment studies at the household and individual level, considering income as well as different welfare criteria such as food security, education, nutrition, and health, see Sharma and Buchenrieder (2002). A review more focused on agriculture is contained in Meyer and Nagarajan (1997), again featuring research citations with mixed results. The evidence on positive impact, e.g. see Sial and Carter (1996) and Pitt and Khandker (1998) as well as on negative impact of credit access on household income (e.g. see Hulme and Mosley, 1998, and Diagne and Zeller, 2002) suggests that credit impact on income and welfare is conditional on other factors, such as access to knowledge, markets, public services and technology. In conclusion, public investment in financial institutions does not make economic sense in every environment.

<sup>5</sup> A very useful guide on assessing the impact of development projects on poverty is Baker (2000).

<sup>6</sup> Pioneering innovations include, for example, (1) *ASA*, *Grameen Bank* and *BRAC* in Bangladesh who began as NGOs in the mid-seventies (2) transformation of the rural bank network of *BRI* in Indonesia, (3) *Prodem*, a NGO that transformed into today's *Bancosol* in Bolivia, (4) *SEWA*, a women's movement in Gujarat, India, that was one of the first NGOs to form a bank and to retail insurance products such as life and health insurance to poor women, and (5) *Calpiá*, a microbank in El Salvador that offers financial services to a broad clientele, including small farmers.

Gonzalez-Vega, 2003) that underwent structural adjustment and financial as well as agricultural sector reform. Recent experience during the 1990s in transformation countries also strongly supports the view that macroeconomic and sectoral reforms need to precede efforts to build rural financial systems and institutions. There is little hope in building sustainable, self-reliant banking structure as long as they are financially tied (and often dependent on) loss-making public sector enterprises that are kept in business by state subsidies (Heidhues et al., 1998).

Moreover, our improved theoretical framework and empirical knowledge on how demand and supply of credit is determined and on the role of information asymmetry creating transaction costs helps us to better understand the potentials and limits of financial services for poverty reduction and economic growth.

## **2. CHANGING WISDOMS AND POLICY OBJECTIVES IN RURAL FINANCE**

Since about the mid 1980s, there has been a paradigm shift in financial policy (including rural finance) from subsidized credit to financial systems development (Adams, 1998). The old paradigm of sector-directed, supply-led and subsidized credit has been based on faulty assumptions about the willingness and ability of poor farmers and other entrepreneurs to pay for financial services, and this led to faulty policy design and implementation.

The new paradigm departs not from the need, but from the demand (i.e. willingness and ability to pay market prices) for savings, credit and insurance services by farmers and other entrepreneurs. It focuses on building sustainable financial institutions and systems, and introduced the operational policy objective of financial sustainability of MFIs. The new paradigm recognizes that high transaction costs and risks that partly result from information asymmetries and moral hazard (Stiglitz and Weiss 1981) for both financial intermediaries and clients are some of the root causes of the gap between demand and supply. Therefore, the new paradigm emphasizes to search for technological and institutional innovations (including suitable governance and incentive structures) to reduce costs and risks of financial intermediation. The new paradigm recognizes the possibility of market as well as government failure (i.e. institutional failure in general), and negates the thesis put forward by proponents of market liberalization that a “*financial system which is not repressed would by itself function optimally*” (cited from Krahnert and Schmidt, 1994, p.24). The new paradigm sees liberalization of financial markets (e.g. with respect to interest rate formation) as a necessary but not sufficient condition for deepening financial systems. Moreover, as the required technological and institutional innovations needed to deepen the financial system and to serve poorer segments of the population can be readily copied by for-profit financial institutions, the resulting free-rider problem prevents private sector from sufficiently investing (compared to socially optimal levels) in such innovations. In conclusion, public investment in pro-poor (and pro-rural) financial innovation is required.

This holds true not only for microfinance, but for rural finance as well. Thus, public investment in rural finance can be justified, for example, to fund (action)-research and promising institutional start-ups as well as institutional expansion until reaching financial sustainability within reasonable time periods, and to support pilot experiments with promising or new products or technology as well as technical assistance, such as for training of staff and transfer of best practices. Given the long gestation periods required in building sustainable institutions, public investment into institution-building requires long-term planning horizons with operational flexibility in instruments and timing. *The required public investment in rural finance is more labor- and knowledge-intensive, and by far less capital-intensive compared to past investments following the old paradigm.*

In this chapter, I first review the faulty assumptions about the poor's demand for financial services, highlight lessons learnt from informal markets, and then discuss trade-offs and synergies between different policy objectives of micro- and rural finance.

## 2.1 Learning from informal demand and supply

At first glance, many might be tempted to say that the poor, earning incomes of less than a dollar per day, are neither creditworthy nor are they able to save; nor can they pay for insurance against any of the risks they face. That these common assumptions are wholly unfounded has been demonstrated time and again by empirical research on informal financial markets and risk-coping behavior of households (Alderman and Paxson, 1992; Deaton, 1992; Udry, 1990; Rutherford, 2000; and Townsend, 1995). During the past fifteen years or so, these myths should have been also laid to rest by the recognition of an increasing number of successful institutional innovations that provide savings, credit and insurance services to poor women and men in developing countries which were previously thought of being unbankable and uninsurable.

Wrong assumptions about the demand for financial services by poor households and smallholder farmers were one of the major reasons why the old paradigm of directed, subsidized credit was accepted for so long. Much of financial policy right until the end of the 1980s and even today has been based on these faulty premises, leading to well-meant, but inefficient and costly policies with negligible outreach to smallholder farmers and rural dwellers. Past policy neglected to provide savings and insurance services (which are especially relevant for poorer clientele), and much, if not all of the emphasis was put on 'giving and forgiving' loans in great numbers. The old paradigm ignored the fact that – through informal contracts- *“many of the poor borrow, more save, and all insure”* (Zeller and Sharma, 2000). The old paradigm ignored this ranking of importance. The ranking actually gets more pronounced with increased levels of poverty, female headship, higher risk aversion, and greater exposure to food insecurity and other risks (Zeller et al., 1997).

Most, if not all so-called credit projects quickly degenerated into transitory income transfer programs with doubtful coverage of the poor, but with never-ending need for injecting public resources to keep state-driven banks and savings and credit cooperatives from collapsing. Faulty perceptions about the clientele and its demand serve

as excuses for inaction or lead to policy recipes promoting ill-adapted services, institutions and market structures.

*The truth is that the poor are creditworthy, can save, and pay for insurance:* They have done it all along, as the myriad of informal savings, credit and insurance arrangements between friends, relatives and other networks daily demonstrate. But it is also the truth that the financial institutions and related knowledge and technology as well as an enabling policy environment were not in place in the past (and still are not in many countries or rural areas within countries). Because this all neither existed nor was acceptable to think about at central, commercial and parastatal banks alike, the poor were deemed to be unbankable.

To put it positively, one thing that we can learn from the “*microfinance revolution*”, as Jonathan Murdoch terms it (Murdoch, 1997) is that institutional - not only technological- innovations and changes in the legal and regulatory policy framework can extend the feasibility frontier of sustainably reaching the poor with financial services. While increasing numbers of people living around or somewhat below the poverty line are reached, the outreach to the poorest remains low<sup>7</sup>. However, our recent learning experience tells us that this does not mean the poorest of the poor are not bankable. At present, we just do not have the technologies and institutional arrangements in place to reduce transaction costs to economically sustainable levels for this group of clientele in many operating environments, in particular rural ones. Yet, the informal sector serves even the poorest of the poor. Informal institutions can be categorized as follows<sup>8</sup>.

**Lending among relatives, neighbors, and friends.** Borrowing from socially close lenders within the moral economy is often the first recourse that poor households have in financing expenses, especially those related to essential consumption expenditures. Transactions are collateral-free and in most cases interest is not charged. These are essentially informal mutual aid schemes that have the principle of reciprocity at the core of transactions. Hence, both the lender (deposit-taker, or insurance provider) and the client gain from the transaction, and the process is self-sustaining. The borrower is able to finance urgently needed expenditures quickly and with little transactions costs: there are no lengthy appraisal process involved, little or no paperwork or travel time is involved, and the terms of transactions are well understood. The lender gains a right to reciprocity that she or he can lay claim to in the future. Further, risk of loan recovery is at a minimum since the lender only lends to persons who are part of her or his social network, within which contracts can be enforced. For each partner, therefore, the long-term gains associated with maintaining borrowing privileges is greater than the short-term

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<sup>7</sup> On the limits of microfinance for the ultra-poor, see Zeller (2001).

<sup>8</sup> This typology is based on Zeller and Sharma (1998), drawing on empirical research of the International Food Policy Research Institute in ten African and Asian countries. All of these features of informal finance are relevant for, and have been copied and adapted into micro-finance. For brevity, I focus here on examples for informal loan transactions, but similar lessons can be learnt from informal savings and insurance contracts. Sentences in italic font highlight implications for (rural) micro-finance. Additional information on informal financial markets is contained for example in Adams and Fitchett (1992) and Ghate (1992).

gain of reneging on the payback. *Such social capital and informal financial contracts can be exploited and used through formation of member-based institutions.*

**The rotating credit and saving associations (ROSCAs)** found in many countries are also network-based. These associations, which may even operate under a designated, sometimes remunerated manager, pool in savings from members each period and rotate the resulting pot among them using various rules. The process is repeated until the last member receives the pot. Because of the rotation rules, these schemes are less suited to address household risk unless the timing of the receipt coincides with unexpected events. Other ROSCAs auction the fund. Still some others allow the fund to be paid out earlier in times of crisis of one of its members, either against pay of a premium or not. Also, unlike demand deposits, once the saving is committed, it cannot be drawn immediately and the member is required to wait her turn. The main purpose of a ROSCA is to accumulate savings and channel this to borrowers in some pre-specified order, and thus fulfill an important intermediation function. *Such informal financial self-help groups exist in many countries, and have inspired to some extent the innovations in solidarity group lending as well as linkage banking.*

**Informal moneylenders and pawnbrokers.** Typically, they are approached when the demand (e.g. loan amount and its timing, sometimes need for confidentiality) cannot be fulfilled by socially closer lenders, such as friends, neighbors, or ROSCAs. Moneylenders charge explicit interest rates in order to obtain real positive returns on their capital. In fact, interest rates are usually high, and real rates in the range of 5-10 percent per month are common. Typically, moneylenders lend only to households about whom they possess enough information. However, they may also lend to others about whom they possess less information if punitive actions against those that default are feasible. Lending may be either secured by physical collateral (e.g. land is often used in Asia, or by movable property such as pawned consumer assets, gold and jewelry, or by production assets such as animals and standing crop), or by social collateral, such as third-party guarantees or loss of reputation in one's social network. These collateral substitutes are effective in sustaining the informal lending business because contract enforcement is legitimized by social norms. *Member-based institutions, such as village banks, groups, and savings and credit cooperatives have a comparative advantage over socially distant banks in using social capital for the enforcement of their contracts. Also, deposit-taking institutions have a comparative advantage in using informal enforcement mechanisms compared to institutions that lend "cold" money.*

**Tied Credit.** Informal, but socially and/or spatially distant lenders frequently tie their loans to complementary transactions in land, labor or commodities as they lack adequate information about the creditworthiness of the borrower or suitable physical or social collateral. Thus, traders disburse input and consumption credit to farmers in exchange for the right to market the growing crop; shopkeepers increase sales by providing credit for food, farm inputs, and household necessities; and landowners secure access to laborers to whom they lent in the hungry season. The important feature of these types of transactions is that the lender also deals with the borrower in a non-lending capacity and is able to use this position to screen applicants and enforce contracts at



relatively low transaction costs compared to a pure money-lending contract. In the complementary non-financial contract, the lender often exercises near-monopoly power (such as often occurs between landlord and tenant or employer and laborer) that may feature usurious, i.e. monopolistically priced interest rates. Tied credit has frequently been used by state-owned marketing boards that monopolize agricultural input supply and output marketing. It is also used by agribusiness processing firms that control critical bottlenecks in the production or marketing of agricultural, often perishable products. *However, the deregulation and liberalization of agricultural markets has reduced the scope of using tied contracts as collateral substitute in rural lending.*

The above four informal institutions provide valuable financial services, and we can certainly learn a great deal from them. However, there is no reason to romanticize about them. Lending among family members and friends as well as Roscas may bear a high risk for poor people, for example with respect to default or social exclusion. Information tends to be segmented and to circulate within specific groups or networks excluding others (Robinson 2001). Communities can be driven by vested interests of the local elite. Moreover, *all of the above institutions have serious limitations with respect to term and size transformation, liquidity, and risk diversification* because they are based on personal relationships and reciprocity and deal in socially, culturally, economically or geographically limited sectors.

## **2.2 The triangle of microfinance: financial sustainability, outreach, and welfare impact**

Internationally agreed principal objectives of development cooperation are the United Nations' Millennium Development Goals (MDGs). These set targets to reduce (income) poverty and make improvements in the various dimensions of poverty (or welfare) such as education, health, nutrition and women's empowerment<sup>9</sup>.

Following the concept of a logical framework, (financial) sector policy objectives need therefore to be consistent with these principal objectives<sup>10</sup>. *Microfinance as well as rural finance policy has to be evaluated against three objectives: financial sustainability, breadth and depth of outreach, and welfare impact* (Zeller and Meyer, 2002).

Financial sector policy can support the Millennium Development Goals (and thus poverty reduction) in two ways:

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<sup>9</sup> Poverty has many dimensions. The dimensions of poverty include all basic needs such as good nutrition, health, education, housing, clothing, as well as income or entitlements as means to satisfy these basic needs. Many of the basic needs, and thus dimensions of poverty, are articulated as recognized in the MDGs. In this paper, I interchangeably use the term poverty reduction with the internationally agreed MDGs. On microfinance as a strategy to reach the MDGs, see Morduch et al (2003).

<sup>10</sup> This is not meant to imply that (micro-) and rural finance as well as building sustainable financial systems is a panacea for poverty reduction and the achievement of MDGs. There is a broad agreement among policymakers, policy analysts and practitioners that promoting finance is one of several measures which can be undertaken to fight poverty. It is by no means the only measure.

- Indirectly, through supporting a sustainable financial system as precondition for economic and social development. This indirect pathway includes causal chains that can be summarized under the thesis of *poverty reduction through economic growth*. One of these causal chains is for example that owners of wealthier enterprises using financial services create additional demand for goods and services of the poor thus increasing their income.
- Directly, by increasing the access of poor people to financial services. Within this direct pathway, Zeller et al (1997) distinguishes three sub-pathways of how access to financial services can influence the poor's income generation and consumption stabilization.

Governments and donors may differ in their perceptions about the relative effectiveness and efficiency of the two pathways. Indeed, which one may receive more emphasis has to necessarily vary with country- specific conditions. It follows that governments and donors also differ in their relative emphasis on the three objectives in micro- and rural finance, i.e. financial sustainability, depth of outreach, and welfare impact. This, of course, influences their view on the relative efficiency of different types of financial institutions, and thereby influences how financial policies are designed in practice and how the institutional landscape evolves. Because of market imperfections, the state has a legitimate role for investing in financial systems development (Stiglitz, 1992; Krahn and Schmidt 1994). However, given the possibility of government failure (i.e. governments may not be able to correct market failures), and social opportunity costs of public funds, there are of course also limitations of public investment in finance.

There has been a shift in paradigm in rural finance in the late 1980s, and much of this can be traced to the failures of subsidized small farmer credit and the successes of a few MFIs. The objectives of financial policy have changed along with the paradigm shift. Initially, the focus was on improving the outreach of MFIs to the poor, that is, serve more of the poor (breadth of outreach) and more of the poorest of the poor (depth of outreach). Eventually, the objective of sustainability of financial institutions took on great importance. Following the work of Ohio State University and other institutions in the 1980s, the view emerged that the building of lasting, permanent financial institutions requires that they become financially sustainable, that is, they cover their costs. Some analysts (for example, Christen et al. 1995; Otero and Rhyne 1994) argued that increasing the depth of outreach and financial sustainability are compatible objectives in the sense that increasing scale of operations will also increase the absolute number of poor people among clients: "It is scale, not exclusive focus, that determines whether significant outreach to the poor will occur" (Christen et al., 1995). Several other authors present analysis (Hulme and Mosley, 1996; Conning, 1999; Cuevas and Paxton, 2002; Lapenu and Zeller, 2001 and 2002) that supports the notion of a trade-off between improving depth of outreach, i.e. reaching relatively poorer people, and achieving financial sustainability<sup>11</sup>. The trade-off stems from the fact that transaction costs have a large fixed

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<sup>11</sup> Many micro-finance practitioners support the notion of a trade-off, e.g. Gons et al. (2001), as well as

cost component so that unit costs for smaller savings deposits or smaller loans are high compared to larger financial transactions. This law of decreasing unit transaction costs with larger size transactions generates the trade-off between improved outreach to the poor and financial sustainability, irrespective of the lending technology used. To cover the higher costs of these loans, interest rates need to either be set higher, or the MFI may follow a strategy of using economies of scale, scope and risk to cross-subsidize smaller loans. Breadth of outreach (in terms of number of clientele) and depth of outreach (at present measured through the very imprecise, but widely used indicator of average loan size (or balance) in relation to per-capita GDP are now regularly reported, e.g. in the *Microbanking Bulletin*<sup>12</sup>. Wenner (2002) states that depth of outreach, specified as target maximum average loan size, has become a criteria used by the IDB for certain instruments of (rural) microfinance policy.

Financial sustainability of the financial institution and outreach to the poor are only two of the policy objectives in microfinance. The third policy objective relates to the impact of financial systems development, particularly on poverty reduction. When policy intervention and direct support for institution building requires public investments funded either by domestic or foreign taxes or donations, the question arises about the payoff or impact, for example in terms of economic growth and alleviation of poverty and food insecurity.

Institutional innovation in microfinance following the new paradigm has relied on financial support by donors and governments and by other social investors such as philanthropic foundations. In fact, many, but not all, MFIs that reach large numbers of female and male clients below the poverty line require continued state or donor transfers to fully cover costs<sup>13</sup>. Moreover, most – if not all- of the MFIs featured in the *Microbanking Bulletin* that already reached financial sustainability have required public investment at some point of their existence, be it to enable technical assistance or to receive capital for going to scale so as to reduce unit costs. . Some may consider these funds provided by governments, donors and other social investors as subsidies (with a negative connotation), but – from a policy perspective- these funds constitute public investment (be it good or bad investment) in institution and systems building. Such public

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interviews and data analysis presented in the *Microbanking Bulletin* (Issue No. 5, September 2000). .

<sup>12</sup> Most donors and practitioners agree that average loan size or balance (preferably expressed as a percentage of GDP per capita) is indeed a highly imperfect measure of depth of poverty outreach but – as Robert Christen states - it is “among the best available in expressing something about *absolute and relative* poverty”(Microbanking Bulletin, September 2000, page 1). Median loan sizes, or loan size distributions, are better measures but are less often reported and still do not directly inform about the absolute or relative poverty level of clients. It is also important to note that reporting of loan size is often not transparent. Some MFIs report only “average initial loan size” and not “average loan size of outstanding portfolio.” For a recently developed operational method to assess the *relative poverty level* of clients compared to non-clients of MFIs using a multi-dimensional concept and measure of poverty, see Henry et al. (2003) (manual available at <http://www.cgap.org>) and Zeller et al (2001).

<sup>13</sup> Examples are Grameen Bank and BRAC, or village banks. Exceptions are for example ASA in Bangladesh that is financially sustainable in established branch offices but relies on public funds for expanding branch network in more disadvantaged rural areas.

investments are justified from a public policy perspective if the discounted social benefits of public investment in microfinance are expected to outweigh the social costs. These costs include the opportunity costs of foregoing the net social benefits of other public investments, such as in primary education (Zeller et al. 1997). The subsidy dependence index (Yaron, 1992) has become a widely accepted operational measure to quantify the amount of social costs involved in supporting the operations of a financial institution<sup>14</sup>. Addressing the policy question of whether such public investments are economically –not financially- sustainable (Zeller et al., 1997) requires a comparison of social costs with social benefits. This consideration raises welfare impact as an important third objective of microfinance.

The triangle of microfinance reflecting the objectives of financial sustainability, outreach, and impact is represented in Figure 1 (Zeller and Meyer, 2002). MFIs attempt to contribute to these objectives (either indirectly through pursuance of financial sustainability leading to scale and serving many clients or directly through targeting poorer segments of the population) but many stress one particular objective over the other two. So do donors, governments, and other social investors differ in their relative emphasis on the three objectives<sup>15</sup>. Some MFIs may produce large impacts (especially if financial services are coupled with non-financial services addressing other constraints of the poor) but achieve limited outreach. Others may make smaller impacts but are highly financially sustainable with a large breadth of outreach, and investments in such institutions may have a high cost efficiency in reducing poverty. The potential trade-offs between depth of outreach and financial sustainability have been noted, but they may also exist between impact and financial sustainability. As Sharma and Buchenrieder (2002) argue, the impact of finance can be enhanced through complementary non-financial services, such as business or marketing services or training of borrowers that raise the profitability of loan-financed projects. Complementary services are sometimes offered by MFIs but supplying them increases the complexity of the operation and its costs, thereby foregoing efficiency gains from specialization and jeopardizing financial sustainability if the additional costs are not covered by borrowers (which almost never happens).

There may also be trade-offs between impact and depth of outreach. The impact assessment studies reviewed by Sharma and Buchenrieder (2002) suggest that the very poor can benefit from microfinance largely by smoothing their consumption through improved management of their savings and through borrowing. Those just above or just below the poverty line can use loans more effectively for productive purposes, which ultimately raise their income and asset base. Thus, expanding financial services may improve the welfare of the very poor, but not necessarily lift them out of poverty because of their lack of access to markets, technology, knowledge, and other factors that expand the production frontier.

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<sup>14</sup> The approach by Yaron measures social costs under the assumption that the market interest rate used in this approach is an accurate measure of social opportunity costs.

<sup>15</sup> On arguments of the institutionalist versus the welfarist approach in micro-finance, see for example Morduch (1999a, 1999b, and 1999c), Woller et al. (2001), and Schreiner (1997a and 1997b).

These potential trade-offs exist in urban as well as rural finance, and must be addressed when financial institutions develop their business plans and decide between marketing their services to only the very poor, to a mix of clients clustered around the poverty line, or to owners of small- and medium-size enterprises. Clearly, to improve the prospects for achieving financial sustainability, financial institutions may wish to concentrate on non-poor lower-income clients as some Bolivian MFIs and BRI do (Navajas et al, 2000; BRI et al., 2001, cited from Steinwand, 2003). This raises the question of what outcome is considered most socially desirable or optimal. And giving an answer “*is a matter of value judgement*” (Morduch, 1999c). For example, is public support more desired for MFIs that specifically target the poor, such as those in Bangladesh that use specific wealth criteria in an attempt to exclude those living above the poverty line? These questions on trade-offs arise when donors and policy-makers consider investing in rural finance<sup>16</sup>.

There are also potential synergies among the three objectives of microfinance policy. First, financial sustainability is likely to be perceived by potential clients as a critical indicator of MFI permanence, and will influence their decision about whether it is worthwhile in the long run to become and stay clients. Thus, greater financial sustainability can positively influence outreach. This synergy is even more important for savers who must have faith in the permanence of the institution to which they entrust their savings. No one will save with an institution that is considered to be only temporary. Second, striving for financial sustainability forces MFIs to be sensitive to client demand and induces them to improve products, operations, and outreach. Better financial products, in turn, generate greater economic benefits for clients, and thus greater impact.

The conceptual framework shown in Figure 1 points to a wide set of potential trade-offs and synergies between the triangle of microfinance that needs to be better understood. Clearly, both the institutionalist and welfarist group among microfinance have good arguments, and can provide empirical evidence supporting their favored synergies or trade-offs. However, only a public-welfare perspective can consistently unite these different arguments. And a public welfare perspective – using cost-benefit-analysis- can, beyond micro and rural finance, help overcome constraints in other areas

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<sup>16</sup> At present, there exists no (informed) yes or no – answer to this question because of the lack of rigorous social cost-benefit analysis comparing different types of MFIs and measuring the opportunity costs of alternative public investments. Recent research in Bangladesh comes closest to conducting a social cost-benefit-analysis of rural finance. For group-based MFIs in Bangladesh, results by Pitt and Khandker (1998) show a marginal income effect of 15 Taka per 100 Taka borrowed whereas Zeller et al. (2002) calculates 37 Taka. The latter study – in addition to the borrowing effect measured by Pitt and Khandker- measures the effect of having access to unused credit limits that induce households to choose more risk-efficient asset portfolios and consumption smoothing strategies. Morduch (1999c) calculates that the social cost of providing 100 Taka of credit through Grameen Bank dropped from 25 to 11 Taka. Thus, these studies support the notion of a positive cost-benefit-ratio. While more impact studies are important for general policy guidance, it is unlikely that they will be used in the future for operational decisions on public investments (just as there exists a general lack of ex-ante cost-benefit-analysis in development policy).

(communications, markets, health, and education, etc) which hinder the economic, social and human development of the poor and, also of micro and rural finance.

The triangle in Figure 1 is drawn with an inner and an outer circle. The inner circle represents the many types of institutional and technological innovations and best practices that contribute to improving financial sustainability (such as employment of cost-reducing information systems), impact (such as designing demand-oriented services for the poor and more effective training of clients), or outreach to the poor (such as more effective targeting mechanisms or by introducing lending technologies that attract a poorer group of clients). The outer circle represents the external environment as well as the macro-economic and sectoral policies that affect directly or indirectly the performance of financial institutions. Innovations at the institutional level (the inner circle) and improvements in the policy environment (the outer circle) contribute to improving the overall performance of the financial system and its institutions.

While finance is certainly not charity, institution-building and innovation can be significantly fostered by public investment. Such investment has to be appraised with the same evaluation criteria as for any other public investment. The social benefit-cost ratio of public support for MFIs will be affected by many factors, including the macro policy, socio-economic and agro-ecological environment. *Some environments may be so hostile to financial-sector development that public investments in MFIs will certainly generate a negative social return, whereas in others the same investment can be highly profitable.*

### **3. DIFFERENCES BETWEEN URBAN AND RURAL ENVIRONMENTS**

There are at least two dichotomies that are worthwhile to consider when identifying differences between urban and rural operating environments for financial systems development. The first refers to general differences between urban and rural environments, the second one between farm and non-farm enterprises.

A precondition for successful rural financial systems building is a stable and favorable macro-economic environment and suitable regulatory frameworks (see Gonzalez-Vega, 2003) allowing most importantly deregulated interest rates and thereby competition. Investing in financial institution-building in countries with repressive financial system frameworks is not advisable, neither in urban nor in rural areas, except perhaps for small-scale schemes with the primary aim of learning and institutional innovation.

#### **3.1 The Urban-Rural Dichotomy**

Comparing urban with rural areas within the same country, we can observe a number of characteristic differences. These differences (1) – (12) can be grouped into the four categories of those that

- (A) lead to **higher transaction costs** for financial institutions and their clients, irrespective of the MFI model (or type) used;
  - (B) lead to **higher systemic risks, more volatile cash flows, and complex, heterogeneous legal frameworks** of doing business and financial transactions in rural areas;
  - (C) result in **lower risk bearing ability and higher vulnerability** of rural households, again emphasizing the demand for financial services for consumption smoothing over investment loans; and
  - (D) lead to a **lower commitment of development organizations to rural areas** in general, and a weaker implementation of planned policies in rural areas.
- (A) Higher transactions costs:**
- (1) Lower population density in rural areas
  - (2) Considerable spatial dispersion of rural households, markets and institutions
  - (3) Lower level of infrastructure. Despite or because of greater distances and less traffic density, rural infrastructure is inferior in quantity and quality. This applies to communication, road, education and other infrastructure.
  - (4) Lower level of access to information, education, and business training.
- (B) Higher systemic risks, lower and more volatile cash flows, and complex, heterogeneous legal frameworks:**
- (5) Higher degree of segmentation in commodity and financial markets and institutions, creating greater fluctuations of prices.
  - (6) Lower degree of income diversification in the rural economy (lower share of public sector employment as well as service and industry sector). Covariant weather risks do not only affect agricultural sector, but the rural economy as a whole through forward and backward linkages of agriculture with the non-farm sector. Not all of agricultural and other household production is monetarized. As a result, per-capita cash flows tend to be lower and less diversified, and can fluctuate more. Rural households develop a myriad of informal institutions so as to smooth consumption in the wake of fluctuating income and to mobilize savings for on-lending<sup>17</sup>. However, these institutions tend to be segmented by ethnicity, social class, and location, and are therefore quite ineffective when dealing with aggregate shocks caused by floods, insects, or drought. Apart from risk transformation, informal institutions also have serious shortcomings in term and size transformation.
  - (7) Enforcement of formal laws is more costly and time-consuming, and conventional collateral, such as titled land and buildings, is much scarcer. Many rural areas

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<sup>17</sup> See the major informal financial institutions listed in chapter 2.

cannot offer such collateral at all, except for titled real estate in rural towns or those owned by registered businesses. Traditional or informal laws, norms, rules, and institutions become more prevalent, and may vary from one ethnicity or social strata to the other even in the same area. In any case, informal laws, sanctions, and norms must be taken into account by financial institutions, and add to the complexity of doing financial business. Innovative rural finance builds upon and adapts to or uses these informal norms and rules.

**(C) Lower risk-bearing ability and higher vulnerability:**

- (8) Higher incidence and depth of poverty as well as higher incidence of female headship of households due to male rural-urban-migration leads to lower risk-bearing ability of households and their enterprises. Demand for micro-insurance, precautionary savings services, remittance payment services, and credit for consumption smoothing becomes relatively more important, whereas demand for loans for income generation (working capital as well as term loans) decreases.
- (9) Lower level of human development, such as education, nutritional and health status of the population, etc.
- (10) Lower level (in terms of quantity and/or quality) of access to basic needs and services (drinking water, health service, social assistance)

**(D) Lower commitment of development organizations to rural areas:**

- (11) Commitment of government to development is lower in rural areas that are far away from politicians and bureaucrats, own social circles, the voting ballot or political lobbying networks. Farmers and rural folk are usually not an effective pressure group. Most developing countries feature higher per-capita investments in urban compared to rural sectors, even in such basic public services as primary education. Legal frameworks are often urban-biased as well, and favor the ruling class over (ethnic) minorities and rural dwellers.
- (12) There exist massive selection biases in the placement of development institutions, projects and local and foreign staff towards cities, or towards rural centers with better living conditions for foreign as well as national staff. Within rural areas, community-level investments cluster along roads that are at least passable by four-wheel drive vehicles. As a result of this, donor-aided projects may compete with each other in most-favored countries, sectors, or rural areas through bidding up the allowances paid to government and communities for participation in workshops, seminars, and training.

In sum, when undertaking within-country comparisons, rural areas tend to have considerable disadvantages over urban areas. Risks and transaction costs are higher, political commitment to development is lower, and ability to bear risks is lower. This translates into higher transactions costs and risks of rural compared to urban finance, lower and more unstable cash-flows, and less potential for financial institutions to cover



their costs. Many rural areas feature such a low population density and lack basic infrastructure, that – given the current finance technology – the net social costs of publicly supported finance clearly would exceed their benefits. *In other words, at present many rural areas are simply off limits for public investment in financial institution building.* In such disadvantaged areas, public investments in other sectors – mainly infrastructure and basic social services – are likely to be more effective from a social investor’s point of view.

When we compare across countries, there are of course stark differences between rural areas. Rural villages in Lower Egypt feature infrastructure and population density superior to that of rural cities in smaller countries of Eastern and Southern Africa.

### 3.2 Differences between agriculture and other economic sectors

Agriculture commands the highest share of rural GDP in many developing countries, and most of the poor still live in rural areas. Most rural households derive the predominant share of their income from agriculture and related input and output industries and services comprising total agribusiness. Other economic sectors depend more or less heavily on agriculture through forward and backward linkages. The savings and loan portfolios of rural financial institutions can therefore be affected by agriculture even if their clients earn their income in other sectors.

Agriculture features some distinct characteristics in comparison with other sectors of the rural economy.

- (1) **Location-specificity.** Most of agriculture is production in space, i.e. implying that producers are dispersed, leading to higher transaction costs in commodity and financial markets with regressive effects on small and marginal farmers as well as other entrepreneurs trying to make small-size transactions. Because of remoteness, farmers’ access to services, infrastructure, and so on is inferior compared to non-farm households living in rural towns and centers. Everything else equal, this implies for example lower education status of farmers.
- (2) **Terms of trade for agriculture.** Because of urban policy bias, governments tended to heavily tax agriculture, mainly through parastatal marketing of food and export crops, import taxes on agricultural inputs and machinery, and export taxes on agricultural products (Krüger et al., 1991; Yaron, Benjamin, and Piprek, 1997). Thanks to structural adjustment programs, there have been considerable reductions in agricultural taxation in most developing countries since the mid-1980s. Together with an improved macro-economic environment in many countries, especially in Asia and Latin America, this certainly raised the profitability of agriculture. However, supply response has been sluggishly forthcoming in many Sub-Saharan and some other countries, because of structural constraints. Moreover, very costly protection of domestic agriculture in most developed countries (mainly EU and US) continues to persist despite the efforts of the World Trade Organization.

- (3) **Production processes depend on natural conditions and require time.** Crop and much of animal production directly depends on weather conditions. These pose covariant risks to the farming community. Some of crop and animal production is of short period (2-3 months for most vegetables and poultry), but tree crops on the other hand have gestation periods of many years. Farmers respond to these covariant weather risks and lumpy agricultural cash flows through a number of strategies, such as income diversification on- and off the farm, staggered investment into tree crops, and seasonal migration and remittances. This all results in considerable shares of non-farm income in farming households as well as income and cash-flow smoothing that may enable many to make regular cash payments. The poor tend to be the most diversified. The other side of the diversification coin is to lose out on the benefits of specialization.
- (4) **Seasonality.** Mainly because of its dependence on weather, agricultural production features seasonality, creating cash surpluses after harvest and cash scarcity before harvests. Because of seasonality, prices of food can vary strongly, and price spreads of 100 percent between the hungry and the post-harvest season in poorly integrated markets are common. Other factor prices, such as wages, as well as informal credit limits also feature distinct seasonal patterns in poorly integrated markets.
- (5) **Significant role of women in agricultural and especially food production.** Women are prime producers of food crops in many countries, and therefore key to food and nutritional security (Quisumbing, 1995). Women are discriminated against in cash crop production in many societies, and in some backward rural societies even barred from market and financial transactions. In many households, because of gender discrimination, fungibility of capital may not exist. Thus, reaching women in rural areas may pose significant additional socio-cultural challenges.
- (6) **Incidence and depth of poverty.** In rural areas of many developing countries, semi-subsistence farmers, rural wage laborers, and female-headed households belong to the absolute poor. The depth of poverty is particularly high in these groups.
- (7) **High volatility of prices in agricultural commodities.** Prices for agricultural commodities, such as sugar and especially tree crops such as coffee and cocoa, exhibit large price fluctuations over the years. Price risk of key commodities is a covariant risk that is virtually impossible to deal with by rural financial markets and institutions alone (e.g. Malawi's dependence on tobacco, Ghana's dependence on cocoa, and Nicaragua's dependence on coffee). Risk in food and other markets may further be enhanced by erratic public market interventions.

### 3.3 Types of clients of rural financial institutions

Within the rural and agribusiness sector, one may distinguish three broad groups.

**Vulnerable households near or below poverty line:** Wage laborers, tenants, smallholders, retail first-level buyers and small processors of food and agricultural produce, and owners of micro-enterprises. Most in this group belong to the absolute poor in LDC countries, and are frequently vulnerable to poverty in higher-income developing countries<sup>18</sup>. Clients of this group demand financial services for consumption smoothing (mainly precautionary savings products plus term deposits, micro-insurance, and small lines of credit) and working capital loans, many of them for seasonal crop production or off-farm micro-enterprises. Term loans are not frequently demanded by this group because of insufficient equity capital, more pressing problems, risk aversion and low risk bearing ability. Most of this group does not have any traditional collateral, and the majority tries to use informal finance to safeguard food security and other basic needs.

**Above the poverty line and not vulnerable:** Larger smallholders (some being landlords and some having titled land), owners of small estates, traders, owners of micro- and small enterprises, and a good share of civil servants or other permanent employees in most countries. Many of them may have titled land or buildings as collateral, but face high transaction costs in accessing commercial banks.

In many, but not all rural environments, a **third group exists that is composed of larger agribusiness and other firms and owners of plantations**. These may also lack access to the commercial banking sector. As they possess titled land and buildings collateral and formal book-keeping records, they could be also served by micro-banks seeking to diversify their clientele.

### 3.4 Implications

The specific characteristics of rural areas and of agriculture explain why financial institutions prefer to operate in urban areas. Moreover, they explain why financial institutions tend to disproportionately serve clients with non-farm enterprises or salaried jobs in rural towns. While there have been significant improvements made in the competitiveness of agriculture through policy reform as noted above, the above characteristics of seasonality, dispersed farm settlements, widespread and deep poverty, and covariant risks make agriculture overall less attractive for financial intermediaries. Irrigation and improved agricultural research and extension in technologies, such as high-yielding seeds, pesticides, and veterinary services, can substantially reduce risks in crop and animal production. Rural infrastructure can reduce transaction costs in real and financial markets.

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<sup>18</sup> This group may also include lower-level public officials and employees in service and commerce. It does not include the destitute (or so-called ultra-) poor who have not enough social and other capital to be accepted even by the most poverty-targeted member-based financial institutions (Zeller, 2001).

It is therefore not a coincidence that pioneers in rural finance, such as BRI, BAAC, ASA, BRAC, and Grameen Bank, have been formed in areas with a high share of irrigated cultivated area. Most of their operating areas feature high population density and relatively good infrastructure that allow access to improved agricultural technology and output markets at reasonable transaction costs. In a nutshell, rural and agricultural finance may need to be preceded by a sufficient level of public and private investment in agricultural technology, market and other infrastructure so as to decrease risks and increase profitability of agriculture. *Financial institutions need therefore to start rural operations in high-potential areas, and avoid overexposure to agriculture or even to specific clientele groups and agricultural commodities.*

The heterogeneity of clients in rural areas offer challenges, e.g. the need to develop a larger array of financial products. However, it also offers potential, mainly exploiting economies of scale and diversifying asset and loan portfolios. *Expansion into rural areas of traditionally urban-based MFIs can therefore exploit economies of scale and scope, and reduce portfolio risk through greater diversification.* However, many urban-based MFIs may also lack the products, experience and staff that is needed for dealing with farmers and agribusiness.

## 4. TYPES OF RURAL FINANCIAL INSTITUTIONS

### 4.1 Introduction

The above diverse rural and agricultural characteristics call for different types of financial institutions, each having comparative advantages and addressing specific market segments.

**Institutional innovations in microfinance are rarely the pure product of market forces. Instead, the major innovations in conformity with market principles have been fostered by public investments or by private altruistic action.** The large and successful MFIs reaching the poor in developing countries have all relied on public investments by donors and governments, at least during their formation stage. Because of widespread market imperfections concerning financial services to the poor, institutional innovation and expansion in microfinance are seldom solely market-driven, but a process that has been nurtured by the public sector, civic organizations, and altruistic leaders.<sup>19</sup>: Some examples may substantiate this claim.

**Solidarity groups: The Grameen Bank.** Professor Muhammad Yunus addressed the banking problem faced by the poor in Bangladesh through a program of privately

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<sup>19</sup> *Private-for-profit R&D has contributed little to the microfinance revolution that we have witnessed in the past fifteen years. Private-for-profit MFIs will be needed to go to scale, and have entered the micro-finance market, e.g. through the foundation of micro-banks from scratch.* Going to scale was enabled by creation of micro-banking knowledge – mainly through non-government organizations - that was greatly facilitated by altruistic action and public investment.

funded, altruistically motivated action-research. With his graduate students in Chittagong University, he designed in 1976 an experimental credit program to serve them. It spread rapidly to hundreds of villages. Through a special relationship with rural state-owned banks, he disbursed and recovered thousands of loans, but the bankers refused to take over the project at the end of the pilot phase. They feared it was too expensive and risky in spite of his success. Eventually, through the support of donors, the Grameen Bank was founded in 1983 and now serves more than 2 million borrowers.

**Credit union movement in 19<sup>th</sup> century Europe.** The origins of the microfinance movement lie many years back. In Germany, the concept of the credit cooperative was developed by *Friedrich Wilhelm Raiffeisen* and *Herrmann Schulze von Delitzsch* in the 1840s and 1850s. Their altruistic (not profit-maximizing) action was motivated out of the concern to assist the rural population to break out of their dependence on moneylenders and to improve their welfare. After this institutional innovation, since about 1870, the unions expanded more and more rapidly within Germany with little or no government support. Similar experiments were done in other European countries at the time, and the cooperative movement quickly spread to North America and other regions (Hollis and Sweetman, 1998). For example, by 1920, the Ukraine had over 2 million members of savings and credit cooperatives, and post-socialistic Poland has now 700,000 members<sup>20</sup>.

**State-owned microbanks in Indonesia.** A much-heralded example of the microfinance movement is the village-level microbank system of the BRI in Indonesia. This state-owned bank serves about 22 million microsavers with autonomously managed microbanks. They are highly profitable. The microbanks of BRI are the product of a successful pro-business transformation of a state-owned rural credit program during the mid-1980s.

The above innovations have something in common. They were created as the product of action by the state, donors, or altruistic leaders, that facilitated social experimentation and institutional innovation.

## 4.2 Major types of rural microfinance institutions

**Institutional innovation** does not necessarily mean to create a new institutional type at the international level (as the pioneers of the cooperative movement did), but includes the adaptation of an existing institutional type to the constraints and potentials of

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<sup>20</sup> Outside assistance to Polish credit unions was restricted to training of leaders and professionalization of credit union management and staff. Operational costs of credit unions were not covered by outside funds; instead, start-up credit unions took out loans that they had to repay, albeit at preferential rates. Non-performing CUs (those that showed a negative financial performance trend) were (and continue to be) swiftly liquidated or merged with strong credit unions. One of the keys to Polish credit union success is leaders' realization that outside assistance would and should end. Assuming a limited window of outside assistance, Polish CU leaders concluded that the surest way to assure their long-term capacity to serve the financially excluded was to (a) be profitable; (b) diversify membership to spread costs across; (c) utilize outside assistance cautiously and strategically. (Source: Personal communication with Lucy Ito).

a certain client group in a specific local environment. The many different types of MFIs can be distinguished by two criteria: their legal status and their lending technology. With respect to their legal status, one can distinguish credit projects, credit unions<sup>21</sup>, village banks, and private-for-profit micro-banks.

**Credit projects** are implemented by a supporting organization (state development agency or a non-government organization (NGO)) and are limited in time. Usually as part of or linked to a larger (integrated) rural development program, the rationale of the credit project is to finance critical inputs of so-called project beneficiaries. Issues of financial sustainability usually receive little or no consideration at all: interest rates are often subsidized, repayment is low, and overhead high. These give-and-forgive credit projects undermine systematic, long-term efforts to strengthen the financial system. The practice of *revolving credit funds* features similar weaknesses (Krahn and Schmidt, 1994). As credit projects and revolving credit funds lack vision for institution-building, they will not be discussed further<sup>22</sup>.

**Credit unions** are owned and controlled by their members and function according to democratic rules (if not disturbed by the central or local government as is the case in many developing countries, or by cronyism among members). Profits are reinvested, or shared among members. Credit unions –especially larger ones with remunerated staff and professional management- are focused on profit, but the cooperative origins and the member-based governance structure also feature equity concerns for weaker members. The one-person, one-vote rule is a clear expression of the cooperative spirit of self-help and care for weaker members in the cooperative movement. Credit unions are registered under a country's cooperative law or are included as a special category in the banking law, but may lack effective external supervision or authorizing legislation. The unions form regional and national networks that enable them to transfer excess liquidity. Credit unions are a viable institutional type for rural microfinance: They can draw on one hundred and fifty years of experience in rural and urban areas, and are in fact the number one provider of microfinance<sup>23</sup>. The major comparative advantages of credit unions lie in their ability to service large numbers of depositors, and use these savings to provide a diversified range of loans to individual members. Other key strengths are their ability to sustainably achieve a large breadth of outreach, and also considerable depth as suggested by median savings deposit and loan size and its distribution in several countries such as Bolivia, Ecuador, Philippines, and Sri Lanka (Branch and Evans, 1999; Evans, 2001). While most members of credit unions are non-poor, they also reach many poor people

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<sup>21</sup> In this paper, I use the term credit union also for savings and credit cooperatives.

<sup>22</sup> There are of course exceptions, for example *Calpiá* in El Salvador which grew out of a GTZ-supported credit project begun in 1988. This project had a focus on sustainability from the very start. By now, *Calpiá* is a sustainable microbank offering services to urban and rural clientele. It was first owned by non-profit NGOs, and now is owned by IMI, IFC, FMO, IPC, and the NGO *Fundasal*. Another successful project is *Caja Los Andes* in Bolivia.

<sup>23</sup> Based on a postal survey of international micro-finance NGOs and networks with 67 and 50% response rate respectively, Lapenu and Zeller (2001) estimate that 60.5 % of savings and 59.9% of loans are provided by the cooperative model. See also Cuevas (1999) on the role of credit unions in Latin America.

because of their breadth of outreach. Recent innovations in rural areas include lending to village banks (in cooperation with Freedom from Hunger in the Philippines) and to solidarity groups. Here, one key innovation is that potential credit union members are offered a *choice* of a group loan (village banking) *product* or an individual loan *product* or a voluntary savings *product* (not tied to borrowing).

The cooperative movement has often been misused by government institutions for political purposes, and government interference is a major cause of cooperative failure – especially in developing countries. Cooperative performance in rural areas is mixed (Braverman and Guasch, 1989; Huppi and Feder, 1990), and changes in the regulatory and supervisory framework as well as technical assistance is often called for to improve performance. Krahn and Schmidt (1994) assert that the ownership and governance structure of credit unions tends to favour depositors over the interests of owners and borrowers, leading to a safety-oriented policy that sacrifices profitability and efficiency. However, under the risky conditions of rural areas in developing countries, this conservative policy can indeed be risk-efficient in the eyes of risk-averse depositors and low-income owners. Krahn and Schmidt (1994) conclude that this conservatism is one of the reasons why credit unions are so widespread and have persisted for so long. After all, it is the majority of savers that are the backbone of a credit union.

**Village banks** are semi-formal, member-based institutions that are promoted by international NGOs, first by FINCA and then later also – with modifications to the original model with respect to complementary services or greater decision autonomy granted to members - by Freedom from Hunger, CARE, Save the Children, and others. The village bank is owned by the members, but ownership is not formally registered. Members can decide on interest rates for internally generated savings deposits and on-lending their internal account, and usually feature high interest rates on loans and savings deposits compared to going rates in the commercial banking sector. The banks serve a poorer clientele compared to credit unions, and have a high share of female members. Village banks are promoted with the ultimate objective of reducing poverty. Emphasis is therefore on depth of outreach and impact on poverty reduction, and NGOs often provide complementary services such as education or business training to enhance impact.

A village bank is less complex in structure and administration than a credit union, thus enabling less educated members to manage the bank. However, start-up costs for formation and training are believed to be relatively high and are externally financed by the supporting NGO and its donors. The main form of credit guarantee relies on social pressure. One of the major comparative advantages of village banks – especially for rural areas - is that they can operate as member-governed, autonomous institutions, and thus are highly flexible in determining rules of admission and the level of savings and loan interest rates adapted to local socio-economic conditions. The expectation is that the village banks accumulate and retain sufficient equity capital to become self-reliant. However, this objective of financial sustainability has not been achieved so far by and large. Village banks have shown great strength in reaching poorer clientele, but not in reaching financial sustainability most likely because they chose more disadvantaged locations and clientele to begin with.

Their major disadvantage is that – unless they are linked with a bank, credit union or federation of village banks- their savings and loan portfolio is bound to be constrained and influenced by the local village economy, including the threat of covariant risk. Because of the small size of a village bank (30-50 members), it is unclear whether they have significant comparative advantage over informal community-based institutions in financial intermediation and pooling of risks, other than the access to donor-funded external capital for on-lending to the local rural economy.

From a financial systems perspective, the long-term sustainability and outreach of village banks hinges upon their ability to integrate into the formal financial system. They need to establish linkages with banks or credit unions for refinancing and for earning return on otherwise seasonally idle funds as this seems to be their long-run competitive advantage compared to informal institutions. Federations of village banks may also serve these intermediation functions across villages and rural areas. If they choose this way to achieve market integration, they will come close to cooperative models. Chao-Beroff (1999) describes the successful example of the formation of self-reliant village banks that established a refinancing linkage with the National Agricultural Bank in Mali.

**Member-based institutions.** Being member-based institutions, credit unions and village banks have some common characteristics (Table 1) and strengths. These include building institutions that can empower communities as a whole and create social capital, their lower-cost in-depth information for example on low-income or illiterate clients, and the flexibility (at least in principle) to adjust interest rates and other terms for savings and credit products to location-specific demand schedules. All these points are highly relevant for extending finance to heterogeneous rural areas and clientele groups. *For being sustainable in rural and agricultural finance, it is critical that credit unions and village banks have mechanisms in place to deposit excess liquidity or call in loans through a linkage with banks, or a second-tier or even national-level federation. Covariant risks and seasonality constitute clear limits to expansion and threats to survival for local stand-alone institutions.*

**Solidarity credit group.** With respect to lending technology, we can distinguish individual lending and solidarity group lending. The major characteristics of solidarity groups are listed in Table 1<sup>24</sup>. Major rural MFIs (such as Grameen Bank and ASA and SHARE and, as far as the rural operations of the women-owned SEWA bank in India is concerned), offer loans to solidarity credit groups. *The use of solidarity groups as retail institution allows MFIs to reduce their transaction costs, and thereby increase their depth of poverty outreach.* Large-scale solidarity group lending schemes either operate as banks (e.g. GB, SEWA), or as NGOs (ASA, SHARE) that use the services of rural banks for deposit and payments between NGO branches and headquarter. ASA, an NGO founded in the 1970s, is financially sustainable in its established branches, perhaps because it efficiently uses the existing rural (state-owned) banks, and thereby reduce overhead costs.

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<sup>24</sup> In this paper, solidarity groups are not considered to be MFIs, as Table 1 may suggest. However, because they are an institution, they feature comparative advantages as well as disadvantages that are relevant for rural agricultural lending or lending to the poor.



All of the four above are considered by many as successes in reaching poor women *so that the amount of subsidy that they have required or currently require appears well spent from a social investor's point of view* (Morduch, 1999; Zeller et al, 2001). As they charge interest rates above the “market” rates of banks, and as they reach highly unattractive segments in the eyes of for-profit-financial providers, the potential detrimental effects on competition in the financial system may have been low in the past. However, as competition becomes now fiercer between the large, group-based MFIs in Bangladesh, subsidies for individual poverty-focused MFIs may need to be reviewed in order to provide for a more level-playing field. The comparative advantage of solidarity credit groups in increasing depth of outreach are increasingly recognized and used by other MFIs. However, adjustments of the solidarity lending approach need to be made so as to adapt the group approach (i.e. not replicate) to other socio-economic and agro-ecological contexts, e.g. concerning frequency of meetings and repayment. And customers (and their institutions) may grow out of solidarity group lending as recent changes in ASA, Bancosol, and ACCION-supported schemes suggest. Table 3 lists pros and cons of individual and solidarity group lending.

**Linkage type.** This alternative retail group-based model builds on pre-existing informal self-help groups (SHGs), such as ROSCAs. Its major advantage is that group formation costs were already born by the members. Like other member-based institutions, the “linkage model” (Kropp et al, 1989; Seibel, 1985; Seibel et al. 1994) seeks to combine the strengths of existing informal systems (client proximity, flexibility, social capital, reaching poorer clients) with the strengths of the formal system (e.g. risk pooling, term transformation, provision of long-term investment loans, financial intermediation across regions and sectors). The main principles are:

- Participation: Members of a SHG enter into a group contract with a bank that provides savings and credit services to the group. An intermediary NGO may provide complementary services, such as training or certification of creditworthiness of groups.
- Responsibilities/profit sharing: The bank, sometimes assisted by an NGO, provides the services. The SHG may organize internal member-managed savings accounts, such as is the case with ROSCAs.
- Structure: The SHG is linked to the bank through a group contract. Individual members of the SHG do not have any links with the bank.

Linkage banking has been promoted by GTZ in Indonesia and other Asian and African countries, and by NABARD in India (Meyer and Nagarajan, 2000). Although “linkage banking” certainly has some comparative advantages for rural intermediation, especially for poorer clientele, little empirical evidence exists so far on its performance .

**Are member-based institutions and solidarity group retail lending transferring transaction costs to clients?** Yes, they do. By doing so, MFIs can exploit the informational cost advantages of member-based institutions, thereby lowering MFI's and overall system transaction costs when reaching poorer clientele (compared to a direct, individual relationship between lender and borrower). This question is raised as a point of critique against member-based and member-owned institutions, most forcefully against

village banks and solidarity group lending. While credit unions offer individual loan contracts, their participatory decision-making creates transactions costs as well, albeit presumably not as high on a per-capita-basis as they are in village banks or solidarity credit groups that feature weekly meetings. However, this disadvantage of higher clients' transaction costs does not heavily weigh in the eyes of those clients of member-based MFIs who are not able to get an individual loan contract from a commercial or micro-bank precisely because individual contracts carry higher transaction costs for the lender when dealing with poor, illiterate clientele— all other things equal.

**Microbanks.** Microbanks, as defined in this paper, represent a wide array of institutions. Common is their primary operational focus on reaching financial sustainability. They differ from commercial banks in two aspects: First, they acknowledge and wish to serve the demand for financial services for micro- and small-scale entrepreneurs. But they often avoid mentioning the word *poor* or *poverty* in their mission statement. Second, they use collateral substitutes and other innovations, just like other MFIs. Microbanks include the state-owned community-level banks of BRI in Indonesia, *Bancosol* in Bolivia (transformed from an NGO), *Calpiá* in El Salvador, the present-day *Sparkassen* in Germany, or micro-banks “built from scratch” with technical assistance from consulting companies such as IPC. Their main difference with credit unions and village banks (or NGO-led banks such as *Grameen Bank* and *SEWA Bank*) is that they are not owned by their members, but by individuals or legal entities. Legal entities can be the state (BRI-unit desa), NGOs, private companies, or individuals, or a mix of all. While the social and poverty focus of member-based MFIs is clearly embedded in the ownership and therefore incentive structure, micro-banks depend on the social commitment of its owners to make compromises between making more profit or staying at the lower end of the market. Profits can be increased by moving up market but this does not necessarily have to require reduction in services to poorer clientele as serving a range of clients is often a safer and better long-term strategy.

Due to their heterogeneous origins, the ownership structure differs widely in practice. *Calpiá* for example grew out of a credit program with a strong sustainability focus (Navajas and Gonzalez-Vega, 1999), and is owned by non-profit NGOs. Micro-banks lend mainly on an individual basis (such as BRI-community banks or IPC-supported banks)<sup>25</sup> but also feature solidarity group lending (such as BancoSol). It is obvious that clients prefer to have an individual loan if they could get it on the same terms than those provided by member-based institutions (if we for now ignore other benefits of member-based MFIs, such as social capital formation and sense of ownership, self-help and pride). This is so because participation in any of the above MFI-types carries additional transaction costs on behalf of the client, e.g. for meetings. Yet, because of informational advantages of member-based institutions dealing with poorer clientele, member-based institutions can be more efficient in environments with lower population density, higher illiteracy, and poor road and communications infrastructure.

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<sup>25</sup> Internationale Projekt Consult GmbH (IPC) in Frankfurt, Germany.

Microbanks offer relatively high loan sizes (see Table 2), an indication that their depth of poverty is weaker compared to the other MFI-models in Table 2. It follows that their breadth of outreach to the poor (i.e. numbers of poor reached) will depend more on their scale as opposed to other MFIs<sup>26</sup>. However, the presumably better-off clients of microbanks may not have any access to traditional commercial banks, and loans to small and medium enterprises as well as larger commercial farmers can make an indirect contribution to poverty reduction, e.g. by creating salaried jobs for poor people. While depth of outreach is certainly not their comparative advantage (unless they begin to link up with village banks or solidarity groups such as BancoSol at one time of its existence did), the advantages of micro-banks lie in servicing the neglected middle market<sup>27</sup>. For rural areas and agricultural finance, micro-banks offer comparative advantage for larger, commercial farmers (with or without classical collateral), agribusiness traders, and processors. However, micro-banks offering lower loan sizes, such as IPC-supported banks in The Philippines and Mozambique, will certainly also penetrate the middle end of the microfinance market. This competition – mainly with credit unions- should be seen as healthy (if done on a level-playing field), as it will force credit unions and micro-banks to further innovate. As credit unions and micro-banks have distinct comparative advantages, they may coexist and fiercely compete in some market segments, while dominating others. *After all, this is exactly what we want.*

Table 2 suggests that the village bank, linkage model and the solidarity group reach relatively more women and poorer clients than the cooperative and the microbanking models.

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<sup>26</sup> As noted earlier, there are flaws to using average loan size as a reflection of depth of outreach. Median loan size or even better, distributions of size of loan and savings deposits, provide more reliable information on depth of outreach. Using average loan size can inadvertently mask the depth and breadth of outreach to the poor.

<sup>27</sup> IPC describes its target clientele as “micro and small enterprises, small farmers and other comparatively weak economic units”. According to calculations from data reported at IPC’s website in January 2003, the average outstanding loan size of IPC-supported microbanks as percentage of GDP per capita lies at 218. This is well above the averages reported in the Microbanking Bulletin (MBB) which are 45 for all MFIs and 83 for financially sustainable MFIs. This comparatively high value could be attributed to the circumstances of IPC’s approach: (1) most micro-banks operate in former socialist countries of Eastern Europe, (2) the lending methodology (individual versus group lending), and the charter (banks versus credit unions or NGO-supported village banks). Still, the respective numbers according to the MBB are lower than IPC’s numbers: 86 for Eastern Europe, 88 for individual lending and 135 for banks. It seems more likely that microbanks supported by IPC target the high end and small enterprises (and not the population with incomes around the poverty line). The respective numbers from the MBB are 189 for high end and 467 for small enterprises, in contrast to 16 for low end and 64 for broad. However, IPC’s numbers vary strongly by country, ranging from 12 in the Philippines up to 711 in Moldova. IPC definitely serves a wealthier clientele in Eastern Europe (297), the data for their projects in other countries (79) seem more in line with MBB’s general numbers. For example, according to personal communication with Juan Buchenau, a recent study by the Ohio State University in El Salvador on Calpiá (which receives technical assistance from IPC) found that 40% of its rural clients were poor, and 20% of these were extremely poor.

### 4.3 Other rural financial institutions

Each of the above MFI-types shows comparative advantages and disadvantages. I turn now to state-owned development banks, commercial banks, and other providers of rural and agricultural finance.

**Development banks** focus on medium- and long-term financing of larger rural and agricultural projects (with a high content of public goods, or high impact on economic growth that the private sector for one or the other reason fails to finance). Some of them focus on particular economic sectors. Due to their development objectives, they can and do support microfinance networks and apex institutions, and provide refinancing to member-based financial institutions, such as rural village banks (see e.g. case of BNDA in Mali described in Fruman, 1998 and Chao-Beroff).

National and international development banks, such as KfW, IDB, and EBRD, provide funds for “upgrading” promising NGO-run schemes (such as *Calpiá*) or by giving equity grants for newly built micro-banks. As these banks are (partly) privately owned for-profit-banks, questions may arise (as with credit guarantee schemes) whether this results in true additional lending to microfinance clients (i.e. higher economic growth), or to a crowding-out type of competition with credit unions which receive – in my opinion that is not substantiated by data- the lowest amounts per client in public investments by donors and governments. The equity investment can be critically considered a transfer of public funds to private owners, and if the primary (or even declared secondary) objective is not depth of outreach or impact on poverty reduction, it is difficult to justify these public investments on equity grounds as well. However, they can be justified provided that these microbanks constitute critical elements in the rural financial system (for example serving agro-industry and rural SMEs, and as second-tier institutions serving credit unions and village banks).

**Transformation of state-owned agricultural or rural banks.** If not transformed based on business principles, these banks are a continuing burden to the taxpayer and to rural financial systems building. They constitute the classical case of government failure in rural finance. The lessons learnt from the old paradigm still apply today in many countries such as China, India, Egypt and Pakistan. However, some of these banks – provided that there is true political commitment and ownership of reforms- can be successfully transformed (as BRI and BAAC show) with business-oriented management reforms. A study of rural state-owned banks in Nepal, Sri Lanka and India analyzes recent reform efforts that seek to apply and adapt some of the lessons learnt in Thailand and Indonesia (Steinwand, 2003). *Profit and success in business is not necessarily incompatible with public ownership if management is given the right incentives.* Therefore, it is too early to write the transformation approach off and to argue that BAAC and BRI are exceptional cases from which one cannot learn from for other countries. Often, state-owned development banks possess large branch networks for rural financial intermediation, and have staff that is especially familiar with agricultural enterprises<sup>28</sup>.

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<sup>28</sup> See also IFAD’s rural finance policy on this point. Gonzalez-Vega and Graham (1995) raised the

**Downscaling commercial banks** aims at inducing commercial banks – through technical assistance and staff training for example funded by public funds- to enter into the neglected upper and lower middle market (see second and especially third group of clientele in section 3.3). However, recent experiences by IPC with this approach highlighted many obstacles, such as described by Schmidt (2001) and von Pischke (2003). These obstacles are likely to be higher for banks entering into rural and agricultural finance because staff is not skilled in financially assessing investments in crop and livestock production and may cherish big-bank investment culture.

**Microbanks for whole-sale traders, agro-processors and larger farmers.** Many present-day rural financial institutions effectively screen out this relatively wealthy group either directly by setting targeting criteria or indirectly by offering financial products of little relevance to this clientele which demand larger short-term credit lines as well as long-term investment credit. Larger traders and farmers as well as agribusiness processors are an equally neglected clientele that have critical functions to fulfill in agricultural development and therefore rural poverty reduction. Microbanks aiming at this clientele in rural areas could have considerable potential compared to credit unions, as these types of clientele are too wealthy for credit unions

In countries with a booming agricultural economy such as many in Asia, trader input credit to farmers is important. Equally important can be the provision of finance to capital-intensive agriprocessors such as dairy firms. Partnerships of public and private banks can have a role in enabling larger-scale investments with high expected social pay-off.

**Contract farming.** In so-called *bottleneck* markets, agribusiness firms play a viable role in rural finance and technology transfer through contract farming. Bottleneck markets exist because of the specific characteristics of some crops (cutflower, export pineapple and other fruit, organic coffee) and animal produce (milk) that give a high likelihood to the processor that the farmer will not sell her or his produce in another competing marketing channel. Before agricultural liberalization, there were many politically created bottlenecks through which crops were sold. After liberalization, the array of potential crops shrank tremendously, and competition in the processing sector rose even for classical plantation crops such as oil palm (see for example oil palm in Indonesia). Contract farming can reduce the risks of processors and farmers, enhance provision of technology, inputs, and loans to farmers, and increase the quality and quantity of produce for processing. These intrinsic risk and other advantages could be better exploited in repeating, long-term contracts, and agribusiness firms may be able to borrow against these contracts from commercial banks. *It appears that contract farming is a viable, but heavily under-exploited and under-researched commercial option for agricultural finance in developing and transitioning countries.*

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question of whether state-owned (agricultural) development banks could potentially play a significant role as a source of rural and micro-finance. They identify conditions and opportunities for successful transformation.

#### 4.4 Microfinance best practices

This section asks the question of whether current best practices in microfinance are transferable to rural and agricultural finance.

A recent study (Klein et al., 1999) reviews best practices as far as agricultural lending is concerned (Table 3). I agree with the authors that most current best practices in microfinance are relevant and applicable in rural areas. However, repayment schedules, timing of loans, and other credit contract features need to be adapted to rural and farm households. *But this is nothing new: Current microfinance works to design specific products for certain target clientele groups.*

The old and exclusive emphasis on farm budgets as a way of assessing creditworthiness is completely outdated, and needs to be replaced by cash-flow-analysis of the farm household, considering all sources of income as is practice in microfinance. However, farm budgets and investment analysis (Gittinger, 1982) are still relevant and need to be applied in larger investment projects that demand term finance such as is the case for larger, lump-sum investments in farm buildings, machinery, animals, and tree crops. Here, the assessment for farmers must again include their other income sources.

With respect to savings, recent books such as Branch and Klaehn (2002) and working groups by GTZ and CGAP on savings mobilization (Wisniwski and Hannig, 1998) sum up our best knowledge in provision of savings services. Again, this knowledge is also relevant for servicing rural areas and farmers. As in the case of the lending business, savings need to be diversified so as to better respond to seasonality and covariance risks when expanding rural finance.

Micro-insurance is the most difficult of the three financial services. So far, the industry's experience is mainly with services covering idiosyncratic risks such as accident, certain illnesses, and death. Again, pioneers in micro-insurance consist mainly of non-government organizations such as SEWA, ASA, and BRAC, and they continue to broaden our knowledge.<sup>29</sup> Lessons learnt and best practices in micro-insurance have recently been compiled by Dror and Preker (2002) and Churchill et al. (2003). In rural areas, as discussed above, covariant risks such as weather are extremely important, and the paper by Skees (2003) in this conference deals with this issue.

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<sup>29</sup> For a comprehensive discussion of agricultural sector risks in finance, see the conference paper by Skees (2003).

## 5. SUMMARY AND RECOMMENDATIONS

This paper began with a first recommendation: *Learn from past failures.*

Which institutional type (or model) is suited for rural and agricultural finance? Three major reasons call for institutional diversity in rural areas, and further public investments in institutional innovation and adaptation. First, donors and governments and other social investors differ in their relative emphasis on direct or indirect pathways of poverty reduction through financial systems development. So do the types of rural financial institutions reviewed in this paper. Second, the diversity of socio-economic contexts and the different levels of political, social and economic development require that the various institutional types are adapted to the local context. Because of the diversity, there is need of several institutional types that compete with each other in some market segments while dominating others. Because of the specific characteristics of rural areas and of agriculture, institutional and technological innovation and adaptation is crucial to reduce transaction costs for institutions and clients alike. Progress is achieved by testing different ways, and learning from failures. Such innovation can be enhanced through participatory processes with, by and for poor women and men that addresses the diverse demand for financial services. It can be also enhanced by public-private partnerships to strengthen financial and other services provided by agribusiness and traders to farmers, for example through contract farming or leasing of specialized equipment. Third, the main institutional retail types in rural finance, i.e. credit unions, micro-banks, and village banks, all have their justification because of their specific comparative advantages. Instead of choosing one approach (targeted to the poor vs. targeted to non-poor), the best use of public support is to allow both extremes and in-between approaches within a rural financial systems perspective. That is, to allow and support the building of a diversity of financially sustainable institutions. *Indeed, the second major recommendation of this paper is that there is no blueprint for rural finance, and institutional innovation and adaptation to specific socio-economic and agro-ecological contexts as well as to specific clientele groups is always required.*

The third recommendation is that public investment in specific rural financial should be pursued with a *financial systems perspective*. This implies that – when building financial institutions- public action and public-private-partnerships need to also foster horizontal and vertical integration in a necessarily decentralized rural financial system. Village banks, solidarity groups, and pre-existing self-help groups are possible first-tier types at the rural retail level with a high depth of outreach. The village bank as a first-tier retail institution has comparative advantages over solidarity groups and informal self-help groups but lacks the size and diversification needed to become a stand-alone institution able to deal with seasonality and covariant risks that can be pervasive in rural areas. Of course, this need for integration, i.e. linking with commercial and development banks, also arises for credit unions and for micro-banks, but to a lesser extent as compared to

small and undiversified village banks. Nonetheless, integration of first-tier institutions, be they village banks, credit unions, and microbanks, is very essential. The issue of size is in this context very important: Any MFI will be strongly affected in rural areas by seasonality and covariance of risks, that is *stand-alone retail rural financial institutions are doomed to vanish once public support is phasing out*. In consequence, larger size and diversification of clientele and products is very desirable to sustainably serve rural populations. Greater exposure to rural areas, or to agriculture in general, and to specific crops in particular, all raise the need for horizontal and vertical integration of village banks, credit unions and micro-banks. The latter two can also assume a useful role in rural areas (in addition to their first-tier retail function) as a second-tier financial providers to village banks or solidarity and other self-help groups. The third tier of rural finance will then consist of commercial, (transformed) state-owned, and cooperative banks. These institutions fulfill important functions in rural financial systems development, and are also needed to fund larger rural and agricultural investments, some of them through public-private-partnerships investing in new agribusiness processing and trading firms. However, these third-tier institutions do not have any comparative advantage in dealing with the micro- and small enterprise sector, farmers, and other poor or not-so-poor rural dwellers.

Forth, best practices of (mainly) urban-based microfinance are relevant for rural and agricultural finance as well. But replicating best practices is simply not enough for expanding the financial frontier. Designing, experimenting with, and building financial institutions benefiting the rural poor and not-so-poor require economic resources and adequate consideration of longer-term social returns, and the case of publicly funded R&D – performed in partnership with the private and civic sector - in rural finance appears strong.

Fifth, one obviously should not start with the most difficult things first, and then do the more easy things later. *Financial institutions will expand first in high-potential rural areas, and avoid overexposure to agriculture or even to specific clientele groups and agricultural commodities. Public investment for going to scale in better-off areas can and should go parallel with learning and small-scale action-(research) projects and pilot schemes in more disadvantaged areas.*

Given the renewed interest in rural and agricultural finance, a word of caution against over-emphasizing the role of rural and agricultural (micro-)finance for poverty reduction and economic growth concludes the paper. Rural households – especially the poor - face complex, multiple constraints on earning opportunities, and addressing these constraints – such as lack of access to knowledge, infrastructure and markets – may often prove a better strategy for agricultural and rural development and poverty reduction. The impact of financial services on welfare is likely to vary with accessibility to complementary inputs such as irrigation, education, market and social services. In many rural environments or for some socioeconomic groups, access to finance in general and to credit in particular may do no good, while in other regions and for other groups, it can make an important difference. Thus, the challenge to expand rural and agricultural finance is very large, indeed.



Well, let me end with something positive: Rural areas and agriculture also offer considerable potentials for MFIs to expand and diversify their savings and loan portfolio that will benefit MFIs and their urban and rural customers. Institutional innovation in microfinance, and bold experimentation by NGOs and other institutions with adapting different institutional types to local environments has led to a number of large, successful MFIs. It is important to note that these innovations were borne out of market forces, but relied heavily on financial support from the state and donors. The focus was on building cost-efficient MFIs that were congruent with market principles and that reached poorer segments of the society as clients. Future innovation will further benefit from more public-private partnerships as this will reinforce the needed drive to go to scale.

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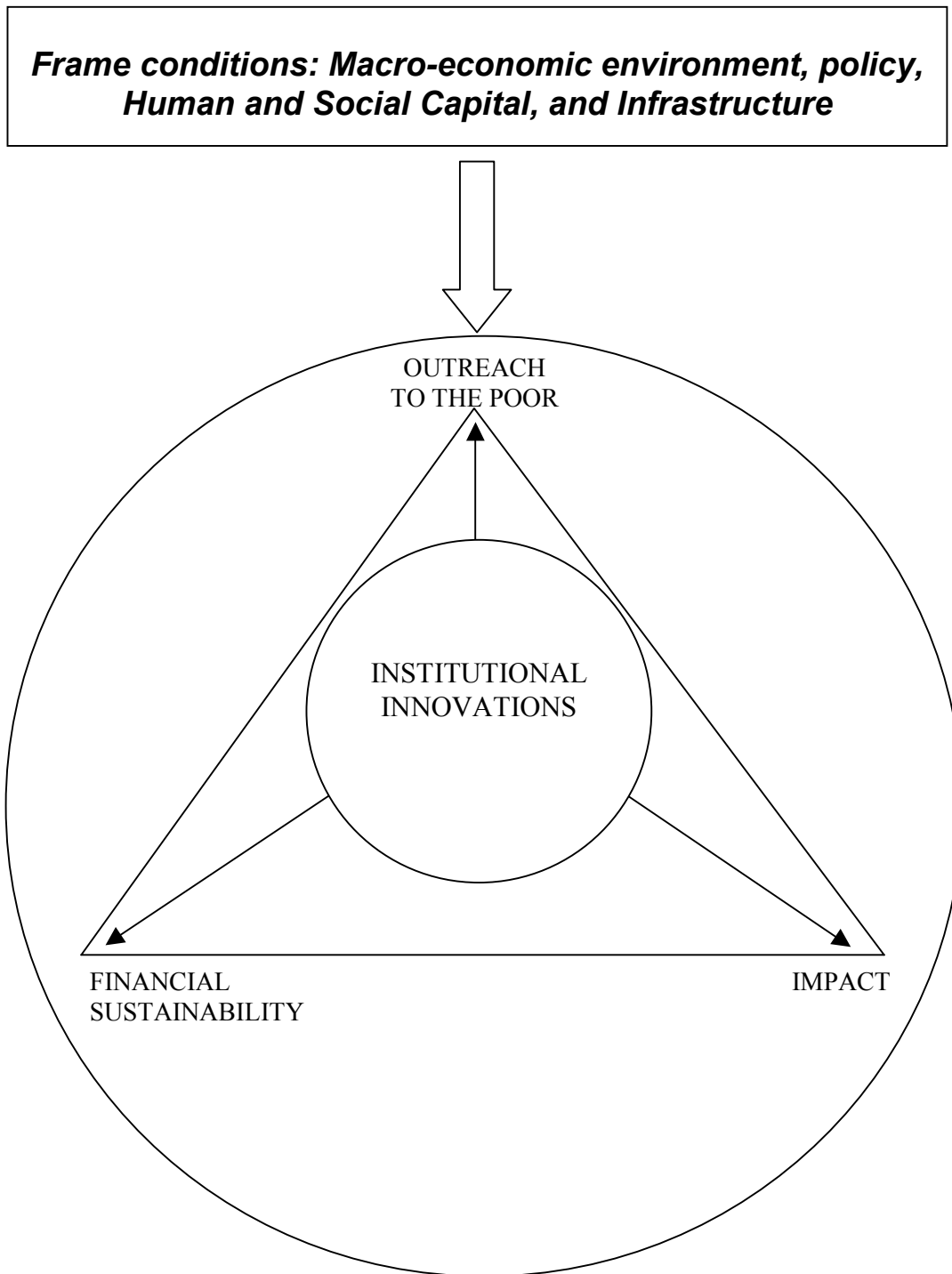
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**Figure 1. The Triangle of Microfinance**



Source: Zeller and Meyer (2002)



**Table 1: Types of microfinance institutions and major characteristics**

	Size of the local organization	Ownership of equity	Rules/ decision-making	Eligibility/ screening	Main source of funding	Relations Savings/Credit	Structure	Main type of guarantee	Management
1. Credit unions (e.g. supported by WOCCU, Raiffeissen, Desjardins)	New group, on average 100-200 members	Member (equity shares)	Democratic (One person = one vote)	Purchase of shares; sometimes type of occupation or social group	Member savings	Focus on savings; credit mostly from savings	Pyramidal structure unions or federations/ local branches Bottom-up	Savings	Salaried-staff and elected, voluntary members
2. Village Bank (for example supported by FINCA or CIDR)	New group On average, 30-50 members.	Member	Bottom-up/democratic (members), links with banks supported by NGO/state	Village member Payment for membership	External loans Later member savings through growing internal account	Focus on credit, less on savings	Decentralized at the village level (linkage with a formal bank , credit union or federations of village banks possible)	Savings, social pressure	Elected members (self-managed), some may be remunerated
3. Microbanks (e.g. BancoSol, BRVillage banks, IPC-supported banks)	Individual relationship with the client	Investors: donors providing equity, private firms or individuals, foundations, or state (e.g. BRI)	Top-down	Information on the client	Client savings, equity (partially provided by donors or state), and commercial loans	Focus on both credit and savings services	Centralized with local branches	Conventional collateral as well as innovative collateral substitutes	Salaried staff
4. Solidarity Group Retail Group (either through either ASACI (e.g. ASA, SUKARE) or Banks (Gramscian Banks) but lately MFIs types used	New group center (5-6 groups of 5-10 members each)	Members	Top-down	Accepted as a member of a group by peers, or (worse) by supporting institution	External loans and grant	Focus on credit, mainly compulsory savings; some with micro-insurance products	Pyramidal structure, mostly top-down	Group pressure	Salaried staff
5. Linkage retail model (for example promoted by GTZ/IFAD and NABARD in India)	Pre-existing informal group or groups, with variable size that can obtain loans and save as a group with a public or private bank	Member	Mix of bottom-up and top-down approaches (supporting agency/ members)	Member of a pre-existing SHG Peers, bank or NGO approval	External loans Member savings	Saving first (but just as collateral)	Decentralized at the village level, linkage with closest bank branch	Saving, social pressure, NGO intermediation	Salaried worker from the formal institution, may be NGO staff

Source: Adapted from Lapenu and Zeller (2001).

Table 2: Indicators of poverty outreach, by type of microfinance institutions and lending technology<sup>30</sup>

Indicators	Cooperative	Solidarity group	Village bank	Microbank with individual contract	Linkage model
Percent of female members	55	87	84	40	76
Average loan size (\$)	369	255	122	737	218
Loan size (in % of per capita GDP)	94	52	25	173	45
Average size of savings deposit (\$)	301	37	32	78	28
Savings deposit (in % of per capita GDP)	28	8	6	61	8

Source: Lapenu and Zeller (2001).

<sup>30</sup> The data comes from a postal survey that was conducted by the International Food Policy Research Institute (IFPRI) in 1999. The respondents of the survey were international NGOs involved in microfinance as well as national, regional and international microfinance networks. These respondents were asked a number of characteristics of the MFIs they support in Asia, Africa and Latin America. Of the 43 international NGOs contacted, 29 (67 percent) responded. Of the 26 networks contacted, 12 (46 percent) responded. Though less than half of the microfinance networks responded, the information provided a broad overview of MFIs by region or country. In total, the data refers to 1468 MFIs in 85 developing countries with an estimated number of 43 million savers and 17 million borrowers. Most of the networks that did not answer are national networks with more limited coverage of institutions. This type of sampling has a number of shortcomings that are acknowledged elsewhere (Lapenu and Zeller, 2001). Nonetheless, Table 2 suggests some general patterns that appear plausible.

**Table 3: A compendium for Best Practices in Agricultural Finance (Source: Klein et al., 1999)**

**Table 3.1 Programme Design**

	<u>Recommendations:</u>	<u>Details</u>
Loan term and loan use	<ul style="list-style-type: none"> <li>• provide only short-term working capital</li> <li>• provide only occasionally investment capital</li> </ul>	<ul style="list-style-type: none"> <li>• especially for first-time clients</li> </ul>
Loan size	<ul style="list-style-type: none"> <li>• keep first-time loans small</li> </ul>	<ul style="list-style-type: none"> <li>• avoid encouraging borrowers to introduce potentially risky major changes in their existing business activities (to accommodate the receipt of a single loan)</li> </ul>
Interest rates	<ul style="list-style-type: none"> <li>• charge higher interest rates than conventional formal lenders.</li> <li>• interest rates must be positive in real terms</li> </ul>	
Type of service	<ul style="list-style-type: none"> <li>• "credit-only" (technical assistance or business training may be carried out through partner agencies)</li> </ul>	
Repayment schedule	<ul style="list-style-type: none"> <li>• Arrange frequent repayment instalments (weekly or monthly)</li> <li>• Clients with a good track record may have their schedule altered</li> <li>• closely monitor the borrowers repayment performance</li> </ul>	<ul style="list-style-type: none"> <li>• closely monitor the borrowers repayment performance</li> <li>• especially in case of collateral substitutes (because of practical and legal problems with seizure)</li> </ul>
Repayment incentives	<ul style="list-style-type: none"> <li>• reward good borrowers (full and timely loan repayments) with repeat loans, maybe with increased loan size</li> <li>• charge late payment fees and penalties</li> <li>• Use local networks to enforce loan repayment</li> </ul>	<ul style="list-style-type: none"> <li>• networks can effectively publicize information on delinquent borrowers</li> </ul>
Assessment of loan repayment capacity	<ul style="list-style-type: none"> <li>• Use standardized checklist to assess loan repayment capacity and willingness</li> <li>• Consider all income sources and expenditures of the microenterprise household unit (in addition to the value of the securities)</li> <li>• Use local networks to verify borrowers' reputation</li> <li>• Use collateral substitutes: co-signers, third-party guarantors, household goods, and other proxies</li> </ul>	

**Table 3.2 Decentralization**

	<b><u>Recommendations:</u></b>	<b><u>Details:</u></b>
Decentralized decision making	<ul style="list-style-type: none"> <li>• Decentralize staff responsibilities</li> <li>• Monitor decentralized decision making through staff performance bonuses based on loan recovery and loans disbursed (number and volume)</li> </ul>	
Branch network	<ul style="list-style-type: none"> <li>• Use decentralized branch network:</li> <li>• e.g. Use mobile bank units in branch offices or agencies (e.g. in markets)</li> </ul>	<ul style="list-style-type: none"> <li>• Loan officers regularly visit their clients</li> <li>• Decreases information costs and reduces loan default risk</li> <li>• Allows the loan portfolio to grow and to diversify</li> <li>• Creates client confidence and promotes sense of responsibility</li> <li>• Helps to better integrate financial services into local communities</li> <li>• Enhances the quality of service and contributes to long-term sustainability</li> </ul>

### Table 3.3 Lending Technology

#### Recommendations:

- ⇒ Use a variety of strategies to reduce lending costs and risks of low income clients: use individual and group lending technologies
- Generally prefer/ concentrate on individual lending

#### Details:

##### Advantages of Individual Lending:

- Loan products fits the clients' demand and loan repayment capacity
- Encourages closer lender-borrower relationship
- Strengthens mutual trust between lender and borrower
- May increase compliance with contractual loan obligations

##### Problems of Group lending:

- Group formation and group maintenance is costly  
⇒ work with existing groups (linkage-banking)
- Borrower risk is greater since every group member bears his own risk and that of other group members
- Negative solidarity: the exposure to pay for fellow member loan defaults encourages borrowers to apply for the same loan size rather than fitting loans to individual repayment capacity. If one member fails, the whole group defaults
- Less flexible terms and loan repayment installment
- Lack of written records hampers individual loan appraisal
- Group information advantages and peer pressure works less well in heterogeneous groups and/ or where members live dispersed
- Homogenous groups may result in covariant risks to the lender
- A powerful group leader may misuse his position
- A group may be severely impaired if a good group leader leaves.

##### Reasons against individual lending (re risk reduction):

- Use group lending methodology in order to increase the breadth and depth of outreach:
- A lower number of clients is served
- Minimum guarantee requirements may still remain beyond the capacity of most low income household and prevent loan approval

##### Reasons for group lending:

- can increase the lender's outreach capacity (by using insider information and peer borrower screening)

**Table 3.4 Charter**

	<b><u>Recommendations:</u></b>	<b><u>Details</u></b>
NGOs	<ul style="list-style-type: none"> <li>• upgrade to formal banks<sup>31</sup></li> </ul>	<ul style="list-style-type: none"> <li>• overcome the lack of professional expertise and business culture as well as small breadth of outreach and restricted savings mobilization</li> </ul>
Credit Unions	<ul style="list-style-type: none"> <li>• strengthen performance</li> </ul>	<ul style="list-style-type: none"> <li>• through changes in the regulatory and supervisory framework as well as technical assistance from international credit union organizations</li> </ul>
Banks	<ul style="list-style-type: none"> <li>• Create new MFIs with clear corporate mission and set of objectives</li> </ul>	<ul style="list-style-type: none"> <li>• avoid traditional banking cultures and attitudes that discriminate small/ micro-lender and to overcome past management mistakes and poor reputation (failed credit programs, government interference)</li> </ul>

**Table 3.5 Sustainability**

	<b><u>Recommendations:</u></b>
Productivity of loan officers	<ul style="list-style-type: none"> <li>• Use performance bonuses for the loan volume handled, the quality of the loan portfolio, the number of low income or remote clients</li> <li>• Staff must be well-trained and motivated</li> </ul>
loan portfolio management	<ul style="list-style-type: none"> <li>• Invest in adequate banking software to computerize accounting and MIS (depending on volume and scope of the financial services, on organizational and operational structure of the financial institution)</li> <li>• Integrate loan portfolio monitoring and reporting with liquidity fund management</li> <li>• Respond promptly to potential loan delinquency problems</li> <li>• Take immediate decisions on corrective follow-up actions based on field staff reports; reschedule loans if legitimate reasons for overdue loan repayments exists</li> </ul>

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<sup>31</sup> Alternatively create a new legal body for supervised NGOs that are allowed to take deposits (discussed in Tanzania).

### **Table 3.6 Target Group**

#### **Recommendations:**

- Concentrate on recurring borrowers
- Concentrate on financing non-farm, especially trade activities, but extend lending operations to farmers if commercial banks enter the microfinance market and draw away clients
- Select experienced micro-entrepreneur borrowers
- Borrowers should contribute equity for the investment

#### **Details:**

- financial transactions costs are lower for recurring borrowers
- Build up longer term lender-client relationship to lower costs of obtaining information
- Trade activities have a high turnover and generate regular income flows (less risky)
- Do not lend exclusively for farm activities (because these have less stable production cycles and often present a market seasonality in their revenues)
- Costs and risks of servicing groups of urban microentrepreneurs are usually lower than working with small farmer groups.
- Experienced micro-entrepreneurs with a proven track record are more likely to be successful and to take their loan repayment obligation seriously in the future (less risky than beginners)
- this increases the borrower's stake in submitting a realistic loan application and promoting the success of the business (especially for larger loans)

### **Table 3.7 Environment**

#### **Recommendations:**

- Concentrate on the urban/ peri-urban environment, i.e. areas with higher population density
- Extend lending operations into small municipalities
- provide a favourable economic and legal framework
- Develop coping strategies against unexpected external shocks, i.e. floods, droughts

#### **Details:**

- Easier management of lending costs and risks
- Infrastructure and commodity markets are more favorable for microbusinesses
- Higher literacy
- More frequent relations between bank staff and clients
- If commercial banks enter the microfinance market, some of the clientele may shift over to them
- Stable macroeconomic policies
- Adequate legal and regulatory/ supervisory framework for financial sector development
- Deregulation of interest rates
- Avoid policy distortions that discriminate against a specific economic sector
- e.g. organizational and operational structure, depth of funding sources, specific lending technologies and risk management strategies

