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DISTRIBUTION, GROWTH, AND PERFORMANCE OF MICROFINANCE INSTITUTIONS IN AFRICA, ASIA, AND LATIN AMERICA

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ABSTRACT

How many microfinance institutions (MFIs) exist in the developing world? What are their current performances? In 1999, an International Food Policy Research Institute (IFPRI) team on microfinance conducted a survey on MFIs in Asia, Africa, and Latin America in order to offer a new in-depth analysis on the distribution and performances of MFIs at the international level.

A systematic sampling has been adopted through the contacting of international NGOs and networks supporting various MFIs. The information has been complemented by a review of publications and technical manuals on microfinance. The database of MFIs from 85 developing countries shows 1,500 institutions (790 institutions worldwide plus 688 in Indonesia) supported by international organizations. They reach 54 million members, 44 million savers (voluntary and compulsory savings), and 23 million borrowers. The total volume of outstanding credit is $18 billion. The total savings volume is $12 billion, or 72 percent of the volume of the outstanding loans. MFIs have developed at least 46,000 branches and employ around 175,000 staff.

The IFPRI database underlines the presence of a multitude of MFIs that, except in unstable countries, are widespread, with no forgotten regions. MFIs are very diverse in terms of lending technologies and legal status, which allows room for innovation, but they remain highly concentrated. The data are analyzed by type of MFIs and by geographic regions. The results presented give an overview of the current development of MFIs and offer a benchmark for comparisons.

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1. INTRODUCTION

How many microfinance institutions (MFIs) are there in the developing world? Where are they located? How many households do they reach? How well do they do in terms of repayment and outreach? While there have been previous efforts to inventory MFIs and to look for commonalities in their development and performance, the answers to these questions are still not fully known. In 1999, the International Food Policy Research Institute (IFPRI) team on microfinance conducted a survey of MFIs in Asia, Africa, and Latin America (summarized in Section 1). This study builds on that work and offers further clarification of the world of MFIs by giving a detailed analysis of the distribution, growth, and performance of the MFIs supported by donor organizations and addressing some of the recurring questions on their roles. The questions are analyzed for all the institutions of the sample (Section 2), by type of institutions, i.e., lending technology and legal status (Section 3), and by geographic location, i.e., rural or urban and continent (Section 4). Issues are addressed at an aggregated level, which requires readers to consider the observations with caution. However, the results give benchmarks for the purpose of making comparisons and can help identify questions to be pursued through further research.

2. METHODOLOGY

DIFFICULTIES OF AN INTERNATIONAL OVERVIEW AND PREVIOUS EXPERIENCES

Three major documents provide an overview of MFIs (see Table 1): the Sustainable Banking with the Poor Inventory, *A Worldwide Inventory of Microfinance Institutions* (1996), the Microcredit Summit *Directory of Institutional Profiles* (1998), and Calmeadow's *Microbanking Bulletin* (July 1999). However, some limits exist in the information provided by these inventories.

Other inventories exist, but only at regional or national levels. The PA-SMEC/BIT/BCEAO Database for West Africa (1998) or the Credit and Development Forum Statistics (1998) for Bangladesh offer interesting information to supplement a worldwide inventory of MFIs. Case studies offer more detailed data and analysis about some innovative or well-known MFIs. The Food and Agriculture Organization of the United Nations (FAO) recently launched a Web site called AgriBankStat[1]; however, the inventory focuses on licensed financial institutions and excludes intentionally unregulated financial institutions. The target group of this inventory does not focus on MFIs.

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[1] http://www.fao.org/waicent/faoinfo/agricult/ags/agsm/banks/invent.htm

Table 1: Achievements of the main inventories

Main inventories	Contents	Main results	Limits
Sustainable Banking with the Poor, 1996. *A Worldwide Inventory of Microfinance Institutions*	▪ 200 MFIs with minimum 1,000 clients and 3 years of experience MFIs classified by type (150 NGOs, 28 credit unions, 16 banks, 8 saving banks) and by region (Asia, Africa, Latin America) ▪ Information on outreach, loan portfolio, deposit mobilization, institutional age, gender and group-based lending	▪ 14 million loans totaling US$7 billion ▪ 46 million savings accounts totaling US$19 billion ▪ Banks account for 68 percent of the loan volume, and saving banks hold 62 percent of the savings ▪ Results suggest that NGOs serve a specialized and presumably poorer clientele	▪ No definition of microfinance ▪ Fractional information for the initial sample of MFIs defined at the country level ▪ Risks on self-reported information ▪ Needs updating
The Microcredit Summit Campaign, 1998. *Directory of Institutional Profiles*	▪ 925 member institutions of the Microcredit Summit Council of Practitioners ▪ Raw information on MFIs' mission, their institutional and client profiles, and a basic description of services offered	▪ 12.6 million clients with a high proportion of poor households ▪ 72 percent (9.1 million) clients are reached by only 34 programs ▪ 76 percent of the clients are women	▪ Incomplete and biased selection of the MFI ▪ No classification by type of MFIs ▪ Risks of inflated self-reported information
MicroBanking Bulletin, July 1999. Issue No 3, Calmeadow	▪ 86 MFIs classified by region, scale, and target market ▪ Thanks to the quality of the financial data, analysis of the performances in terms of financial sustainability	▪ 46 percent of the sample financially self-sufficient ▪ 29 percent achieving above 65 percent financial self-sufficiency ▪ Age and size of the MFIs strongly correlate with the adjusted return on assets	▪ Small sample ▪ No classification by type of MFIs and clients

NATURE OF THE INFORMATION

Source of Information

Given the previous experience in compiling an inventory of MFIs, this paper attempts a systematic sampling of MFIs to arrive at a more representative view of the world of MFIs. Instead of compiling MFIs present at the country level, international nongovernmental organizations (NGOs) (Table 2) and networks supporting various MFIs (Table 3) were contacted.[2] By contacting Acción International, for example, the authors could collect information on all MFIs the organization supports.

The international NGOs and networks were asked to send information concerning their activities in the field of microfinance: countries where they work; by country and project the type of MFIs promoted (e.g., solidarity groups, village banks, cooperatives, etc.) with a definition of each type of structure; area targeted (rural, urban, mixed); number of staff; number of clients (members, borrowers, savers); volume of savings and outstanding loans; average size of the loans; repayment rate; donors; and complementary services provided.

Of the 42 international NGOs contacted, 28 (67 percent) responded (Table 2).[3] In some cases, information from the NGOs that did not respond was obtained through other means, such as case studies or publications.

Of the 24 networks contacted, 12 (50 percent) responded (Table 3). Though only half of them responded, the information provided a broad overview of MFIs by region or country. Most of the networks that did not answer are national networks with more limited coverage of institutions.

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[2] Source of information for the lists of NGOs and networks: Web sites of well-known NGOs and network, Microcredit Summit Directory of Institutional profiles, Pôle Microfinancement (http://www.cirad.fr/mcredit/present.html), publications on case studies, IFPRI contacts.

[3] Some NGOs replied, but as they had not compiled information on all their projects around the world, it was difficult for them to provide the requested information.

Table 2: List of international NGOs contacted

Institution	Head office	Answer?
Acción International	USA	Y
Action for Enterprise	USA	Y
Adventist Development and Relief Agency International	USA	N
Agriculture Coop Development International/Voluntary Overseas Coop	USA	Y
Appui au développement autonome	Luxembourg	N
Associacione per la Partecipazione allo Sviluppo	Italy	N
Calmeadow	Canada	Y
Canadian Centre for International Studies and Cooperation	Canada	Y
Canadian Cooperative Association	Canada	N
Canadian Feed the Children	Canada	Y
CARE	USA	Y
Catholic Relief Service	USA	Y
Centre International du Crédit Mutuel	France	Y
Centre International de Développement et de Recherche	France	Y
Christian Aid	UK	N
Christian Children (‘s) Fund	USA	Y
Christian Reformed World Relief Committee	USA; Canada	Y
Development International Desjardins	Canada	Y
Ecumenical Church Loan Fund	Switzerland	Y
Foundation for International Community Assistance	USA	Y
Freedom from Hunger	USA	Y
Grameen Trust	Bangladesh	Y
Groupe de Recherche et d’Echange Technologiques	France	Y
Interdisciplinare Projekt Consult	Germany	N
Institut de Recherche et d’Application des Methodes de Developpement	France	Y
International Coalition on Women and Credit	USA	Y
Mennonite Economic Development Associates	Canada	Y
Opportunity International Network	USA	N
Oxford Committee for Famine Relief	UK	N
PACT	USA	N
Plan International	USA	Y
PlaNet Finance	France	Y
Save the Children	USA	Y
Stromme Foundation	Norway	N
TechnoServe	USA	Y
Trickle Up Program	USA	N
Winrock International	USA	N
Women’s Opportunity fund	USA	N
Women’s World Banking	USA	N
World Organization of Credit Unions	USA	Y
World Relief Corporation	USA	Y
World Vision	USA	Y

Table 3: List of networks contacted

Institution	Head office	Answer?
Action Aid India	India	Y
Agency for Cooperation and Research in Development	UK	N
Banking with the Poor Network	Australia	Y
Bees Trust	South Africa	N
Cashpor Inc.	Philippines	Y
Centre de Services aux Cooperatives	Rwanda	N
Consortium Alafia	Benin	Y
Credit Development Forum	Bangladesh	Y
Credit Union Promotion Committee	India	N
Fed. Nac. de Apoio aos Peq. Empreendimentos	Brazil	N
Federacion Paraguaya de Microempresarios	Paraguay	N
FINRURAL	Bolivia	Y
GOJ/GON Micro Enterprise Project	Jamaica	N
Katalysis North/South Dev Partnership	USA	Y
Khula Enterprise Finance Limited	RSA	N
Microcredit NGO Network Pakistan	Pakistan	N
Microenterprise Innovation Project	Salvador	N
Microfin-Afric	Senegal	N
National Microcredit Network of Congo	DRCongo	N
Near East Foundation	Egypt	Y
Programme d'Appui aux Structures Mutualistes ou Coop d'Epargne et de Credit	West Africa	Y
Palli Karma Sahayak Foundation	Bangladesh	Y
Pride Africa	Kenya	Y
UNDP Pacific Reg. Equitable & Sust. Human Dev.	Fiji	Y

The information collected through the international NGOs and networks has been complemented by a review of publications and technical manuals and in particular with previous work done to compile the information about MFIs.

Selection

Geographically, the information concerns Africa, Asia, and Latin America. MFIs from Eastern Europe and the republics of the ex-USSR were not included because of the risk of collecting only very partial information. (MFIs and their supporting networks are rather new, and often different from those in Asia, Africa, and Latin America.) MFIs from countries with per capita GDPs above $5,000 were also excluded.[4]

In terms of size, MFIs that have been included have at least 500 members and/or 100 borrowers when they have been founded before 1996. All MFIs founded from 1996 to December 1998 have been integrated, whatever their size.

As the idea is to concentrate on microfinance, it was essential to fix a limit in terms of size of the financial services offered. Any limit can look rather arbitrary, and ideally it should vary between the different countries concerned. The authors decided an amount that can be substantial to support a family's microenterprise, but that may appear insignificant for a bigger enterprise with a large amount of capital or many employees. In the sample, an average loan size of less than $1,000 was used as a somewhat crude cutoff point to distinguish microfinance from commercial loans.[5] All of the selected MFIs receive some form of international support, either through funding, technical assistance, or information dissemination.[6]

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[4] The only exceptions are Argentina and Uruguay with per capita GDPs of $8,380 and $5,760, respectively, which have been kept so that the whole continent of Latin America could be analyzed.

[5] Based on this, institutions such as PAME/AGETIP Senegal, Wages/CARE Togo, ADMIC Mexico, and Caja Social Colombia have been excluded due to their average loan sizes of $3,350, $2,800, $2,600, and $2,300, respectively.

[6] In the case of Bangladesh, where the Credit Development Forum collected an impressive amount of data on microfinance NGOs, we kept the NGOs receiving at least 10 percent of their funding from international donors. In Indonesia, the local system of MFIs is impressive, with around 7,000 rural banks, some of which have been in operation since 1895 (Lapenu 1998). However, most institutions, such as the BKD (village banks), are locally owned and financed. We took into account the institutions that receive support from donors (ADB, USAID). These still number more than 680 institutions (or nearly 50 percent of the entire sample).

This mode of sampling underestimates local initiatives and national programs. It also underestimates national associations and foundations, informal systems, and agricultural or microenterprise cooperatives, all of which offer credit and saving services to their members. There were reasons for this choice, however. First, national implementations are more difficult to list exhaustively. Second, the aim of this synthesis is to offer an overview of the role of donors and the international community in the development of MFIs. Finally, except for the informal credit and saving associations or for some specific countries, microfinance development still remains a largely internationally-driven initiative.

Limitations of the Data

Of course, the task of providing a worldwide inventory of microfinance is condemned to be partial, and many MFIs will always be missing. From the institutions listed in the database, there is also missing data. When average sizes of the loans are not provided, there is a risk of misclassifying institutions, i.e., some may offer loans that average over $1,000. Moreover, missing data on the number of clients or volume of credit and savings lead to underestimates of the volume of activity. However, the larger the sample, the more accurate the overall picture, and with a sample of more than 1,000 MFIs, we have minimized the limitations caused by missing information. As with every inventory, it will be necessary to update the information regularly. This will, of course, create the opportunity to further refine the data.

In terms of reliability of the information, most of the data was self-reported by the MFIs or the network they belong to. However, when the information comes from supporting institutions, we assume that the accuracy of the data was checked by the supporting institution. Given the difficulties of obtaining accurate and comparable information based on accounting data or level of poverty of the clients, no information has been recorded on costs, sustainability, or profile of the clients. The distinction between rural and urban areas comes from MFIs' self-assessment rather than a strict definition. Finally, the years of the data may differ (50 percent are from 1998, 39 percent from 1997, 4 percent from 1996, and the remaining 7 percent from 1992 to 1995, and 1999) but they give a general overview of the volume of microfinance activity.

3. GLOBAL OVERVIEW OF MFIs IN THE DEVELOPING WORLD

VOLUME OF ACTIVITIES

This database of MFIs[7] from 85 developing countries shows 1,500 institutions (790 institutions worldwide plus 688 in Indonesia) supported by international organizations (Table 4). They reach 54 million members, 44 million savers, and 17

[7] See Lapenu 2000.

Table 4: Overview of the volume of activities of MFIs in the developing world

	Number of observations	Total
Number of countries	770[a]	85
Number of MFI recorded in the sample	770	1,468
Number of MFI with data	770	1,366
Number of local branches	384	45,572
Number of staff	262	81,020
Number of borrowers	526	16,684,442
Number of savers	364	43,929,072
Number of members	650	54,050,639
Volume of savings ($)	464	12,269,966,267
Volume of outstanding loans ($)	519	17,452,192,521

Source: IFPRI surveys on worldwide MFIs, 1999.

[a] The unit of analysis of the database is the MFI classified by country. However, in few cases, the data is aggregated. 688 MFIs in Indonesia have been registered as three aggregate institutions only in the database: 27 NGOs, 252 ex-LDKP, and 409 rural banks. Around 20 MFIs have also been aggregated due to the availability of aggregated data only. 792 is the total number of rows in the database, including 22 countries with no MFI. When the number of observation is low, as for example for the number of staff, the aggregated value (of total staff) is certainly underestimated.

million borrowers[8] in 85 countries. MFIs have developed 46,000 branches. The total volume of outstanding credit is $18 billion. The total savings volume is $13 billion, or 72 percent of the volume of the outstanding loans. This represents a notable volume of savings in view of the frequent critics against MFIs, which focus more on credit at the

[8] Some corrections can be reasonably added to replace some missing values:

- If the number of borrowers is missing while the number of members is available (cooperatives in 42 percent of the cases), we take the average of the cooperative model, i.e., when the data are available, 40 percent of the cooperative members on average have outstanding loans. Thus, we assume that for all member-based institutions, 40 percent of members have outstanding loans; the total gives then 23,542,955 borrowers.
- If the number of staff is missing, we take the average productivity of staff in the sample (120 loans by employee) and replace the number of staff by the number of borrowers divided by the average productivity. It gives a total of 175,067 staff members.

expense of savings mobilization. Of course, if MFIs were to distribute loans from the mobilized savings, the current amount is still insufficient.

If the figures are viewed from the perspective of the population of developing countries, the global outreach of microfinance can be summarized as follows: on average for developing countries,[9] 1.5 percent of the total population are MFI members. The volume of credit disbursed is around $5 per inhabitant and $3 per inhabitant are mobilized as savings.

AVERAGE PERFORMANCE OF MFIs

Repayment rates, as reported in the questionnaires, appear quite high at 91 percent (Table 5). If weighted by the loan volume, the rate increases to 98 percent, implying that MFIs with larger loan volumes, i.e., larger MFIs, seem to have better repayment rates than smaller MFIs. On average, it seems that staff productivity in number of loans is relatively low, with 120 borrowers per employee, and a portfolio of $20,000 of credit and $10,000 of savings. By contrast, the figures for banks average 187 borrowers per employee, with $50,000 of credit and $16,000 of deposits.

It is difficult to evaluate the depth of outreach of the MFIs at such an aggregated level. However, the available data include three proxy variables by which to assess the access by the poor to the financial services: percentage of women clients, average loan size, and average deposit size. The unweighted figure suggests a high outreach to women

[9] Average for the whole sample aggregated by country and weighted by national population.

by MFIs (78 percent). However, this result must be qualified, as only the small institutions have a high percentage of women members. Thus, if the size of the MFI (in terms of number of members) is taken into account, the share of women is only 45 percent. One can say, nevertheless, that the presence of women is significant.

Table 5: Average performance of MFIs in the developing world

	Number of observations	Average value
REPAYMENT		
Repayment (unweighted, percent)	347	91
Repayment (weighted by volume of credit, percent)	347	98
STAFF PRODUCTIVITY		
Number of loans per staff	256	121
Volume of loans per staff ($)	254	19,197
Volume of savings per staff ($)	256	9,849
OUTREACH		
Percentage of women (unweighted)	487	78
Percentage of women (weighted by number of MFI members)	487	45
Loan size ($)	376	268
Deposit size ($)	272	99
Loan as a percentage of per capita GDP	367	62
Deposit as a percentage of per capita GDP (**)	269	18

Source: IFPRI surveys on worldwide MFIs, 1999.

On average, the MFIs offer services of very small size, suitable for poor people: loans average under $300, and deposits under $100, representing 60 percent and 20 percent, respectively, of the annual GDP per capita for the loans and savings accounts.

SIZE OF THE MFIs

Forty-eight percent of MFIs have fewer than 2,500 members, almost three-fourths have fewer than 10,000 members, and only 7.5 percent have more than 100,000 members—an impressive world of tiny institutions (Table 6). This diversity is due to the fact that competition is imperfect; donors and governments subsidize institutions of various sizes (with small MFIs receiving relatively larger shares of subsidies in relation to their costs); MFIs operate in different market segments (different products and different clientele); and small MFIs entering new market segments such as rural areas or rural poor have higher start-up costs. The combination of these factors leads to a financial system with a multitude of institutional types. The diversity in terms of size observed in the sample of MFIs shows that it is difficult to determine what the optimal size for an MFI should be. In fact, the optimal size may largely depend on the local context, e.g., competitors, the MFI's objectives, its age, approach, clientele, etc.

Table 6: Distribution of MFIs, by number of members

Class of size	Frequency	Percentage of total
0–2,500	307	48.5
2,501–10,000	156	24.6
10,001–100,000	123	19.4
More than 100,000	47	7.5
Total (valid)	633	100.0

Source: IFPRI surveys on worldwide MFIs, 1999.

The world of MFI is highly concentrated: MFIs with more than 300,000 members (19 institutions in the database) account for 44 million members, i.e., 3 percent of the MFIs serve more than 80 percent of the total number of members![10] This extreme concentration underscores the current difficulty to significantly and rapidly increase MFIs' breadth of outreach. It will be necessary to support MFIs and to innovate so that they can reach a significant scale in terms of number of clients and volume of activity.

DISTRIBUTION OF MFIs, BY COUNTRY

With at least 85 countries having MFIs, there is a wide distribution of various microfinance models, with Latin America and East Asia particularly well served. Among the large countries that do not have any MFIs with international support are countries involved in conflicts (Algeria, Somalia, Angola, and Sudan) or countries that receive less international support for political reasons (Cuba, North Korea, Iran, Iraq, and Libya). The same reasons apply for a number of countries that have very low outreach (Democratic Republic of Congo, Afghanistan, Myanmar, Pakistan, and Liberia reach less than 0.1 percent of the population). A minimum of political and economic stability is required for MFIs to develop. However, low outreach figures (less than 0.1 percent) are also observed in countries with high populations (China, India, Nigeria, Egypt).

Latin America and East Asia are particularly active for microfinance. The "giants" in terms of absolute number of members reached are found in Asia: Indonesia,

[10] The 19 MFIs serve 81.1 percent of the members in the database.

Bangladesh, Thailand, Viet Nam, Sri Lanka, and India. In Latin America, Colombia, Ecuador, Bolivia, Mexico, Uruguay, and Honduras account for the largest number of members. In Africa, Eastern and Southern Africa (Kenya, Uganda, Zimbabwe, and Zambia) are particularly dynamic as well as the CFA-franc zone (Mali, Benin, Burkina Faso, Ivory Coast, and Togo).

The largest distribution of loans and mobilization of savings in terms of GNP are recorded in South East Asia (Thailand, Bangladesh, Viet Nam, and Indonesia), Latin America (Bolivia, Honduras, Panama, Jamaica, and Colombia) and East and West Africa (Kenya, Togo, Benin, Mali, and Burkina Faso).

4. ROLE AND PERFORMANCE OF MFIs, BY TYPE OF TECHNOLOGY AND LEGAL STATUS

TYPE OF MFIs, BY TECHNOLOGY

The MFIs have been classified into five major types, according to the main technology they use to provide financial services (see Table 7): cooperatives, solidarity groups, village banks, individual contracts, and linkage models. Some MFIs combine different approaches, e.g., individual and solidarity group models. These have been classified as *mixed*.[11]

[11] One-hundred-and-fifty institutions of unknown type have been excluded from Table 7.

Table 7: Criteria of the typology of MFI structure

	1. Cooperative/ "mutualist" model	2. Solidarity group (GB type)	3. Village banks	4. Linkage model	5. Individual contract
Nature of the local organization	New group On average, 100-200 members	New group Center (5-6 groups of 5-10 members each)	New group On average, 50-100 members	Pre-existing group; variable sizes, from c. 20 to hundreds of members	Individual relationship
Ownership of equity	Member (equity shares)	Supporting agency (donor, state, NGO, private bodies)	Member	Member	Supporting agency (donor, state, NGO, bank, private bodies)
Rules/decision-making	Democratic (one person = one vote)	Supporting agency/partially; may be group members	Democratic (members)	Supporting agency/ members	Supporting agency
Eligibility/ screening	Payment of membership; sometimes type of activity or social group	Accepted as a member of a group by peers, or supporting institution	Village member; sometimes, payment of membership	Member of a pre-existing SHG; peers, bank, or NGO approval	Information on the client, guarantees provided
Main source of funding	Member savings	External loans and grants	Member savings; external loans	External loans; members savings	External loans
Relations: savings/credit	Focus on savings; credit mostly from savings	Focus on credit; mainly compulsory savings	Focus on savings; in principle, credit from savings	Saving first (but just as collateral)	Focus on both credit and savings services
Structure	Pyramidal structure unions or federations/ local branches; bottom-up	Pyramidal structure, mostly top-down	Decentralized at the village level (linkage with formal bank possible)	Decentralized at the village level, linkage with closest bank branch	Centralized with rural/local branches
Main type of guarantee	Savings	Group pressure	Savings, social pressure	Savings, social pressure, NGO intermediation	Classical guarantees, individual credit-worthiness
Daily operations	Salaried workers and elected members	Salaried workers	Elected members (self-managed); some may be remunerated	Salaried worker from the formal institution; may be NGO staff	Salaried workers

The largest MFIs are the cooperative and individual models, with a smaller number among the solidarity groups. The linkage system and the village banks remain small, most of which have fewer than 50,000 members.

If the size of MFIs is analyzed by type, the results can be summarized as follows:

- *Cooperatives:* Very few cooperatives have under 1,000 members (10 percent of the sample of cooperative MFIs); many have 10,000 to 200,000 members. In fact, most cooperatives were formed more than ten years ago, and unsuccessful ones have vanished.
- *Solidarity groups:* 37 percent have fewer than 1,000 members; 93.7 percent have fewer than 50,000 members. It seems to be a difficult task for solidarity groups to grow to a large scale, which is probably due to their geographical location—50 percent are located in rural areas, and 40 percent are in Africa (IFPRI surveys 1999), where low population density and poor infrastructure may limit their development. All solidarity group MFIs with more than 300,000 members are in Asia: BAAC (Thailand); Grameen Bank, BRAC, PROSHIKA, ASA (Bangladesh); Friends of Women's World Banking (India); Viet Nam Bank for the Poor; and P4K (Indonesia). Higher scales of operation can be achieved in densely populated areas, whereas lower scales tend to gain competitive advantage in areas with lower density. Finally, there is no justification for solidarity group systems if the population density is very low (mainly due to cost of staff and

transaction costs related to transport). In this case, village bank and linkage models that rely on endogenous and voluntary organization become more attractive.

- *Village banks and linkage:* None of the village banks has more than 25,000 members. Except for the Self-Help Development Foundation/CARE, Zimbabwe, with 300,000 members, no linkage system has more than 30,000 members. By definition, village banks and linkage models are local organizations that tend by nature to remain smaller scale, though they are linked to the formal banking network or their own federations.
- *Individual:* Most MFIs have fewer than 30,000 members.[12] Three institutions have more than 80,000 members: BRI-UD Indonesia (18 million), Viet Nam Banks for Agriculture and Rural Development (4 million), and CERUDEB Uganda (86,000). Due to management costs, individual lending is not well suited to countries or regions with low income and low population densities.

If Indonesian MFIs are included, the individual approach predominates in terms of number of MFIs (Table 8). Next are solidarity groups and cooperatives. Members are predominantly from MFIs with individual approach. Next are, at the same level, cooperatives and group methodologies. The solidarity groups have the largest number of

[12] In Indonesia, the 1992 Banking Act limited the geographical reach of rural banks, restricting them until 1997 to subdistricts, each of which encompasses, on average, 10 villages. Proposed changes to the regulatory framework will promote consolidation of smaller rural banks in larger ones.

borrowers. Even if the number of borrowers from the cooperative system was underestimated due to a lack of data (see footnote 10, with data corrected based on assumptions), it reveals a very active policy of lending for solidarity groups. The cooperative model dominates for loans and savings volume (around 60 percent), followed by the solidarity groups. In fact, the Indonesian individual MFIs are very numerous but, except for the BRI, mostly represent very small institutions at the village level.

Table 8: Distribution of activities, by type of MFI (including Indonesia), in percent

	Cooperative	Solidarity group	Village bank	Individual contract	Linkage model	Mixed approach	Total
Number of MFIs	11.9	16.4	7	58.3	4	2.4	100
Number of borrowers	9.9	67.8	1.8	17.9	0.3	2.3	100
Number of savers	31.2	25.9	0.5	41.7	0	0.6	100
Number of members	26.9	28	0.8	42.5	0.9	0.9	100
Volume of savings	60.5	28.9	0.1	10.4	0	0.1	100
Volume of credit	59.9	34.8	0.2	4.5	0	0.7	100

Source: IFPRI surveys on worldwide MFIs, 1999.

If Indonesian MFIs are excluded from the sample, solidarity groups dominate in terms of number of MFIs and of borrowers (Table 9). The cooperatives are the most important source for loans and for savings mobilization. Village banks account for an important number of MFIs and of branches, and account for 12.5 percent of members, but they remain very small in terms of volume.

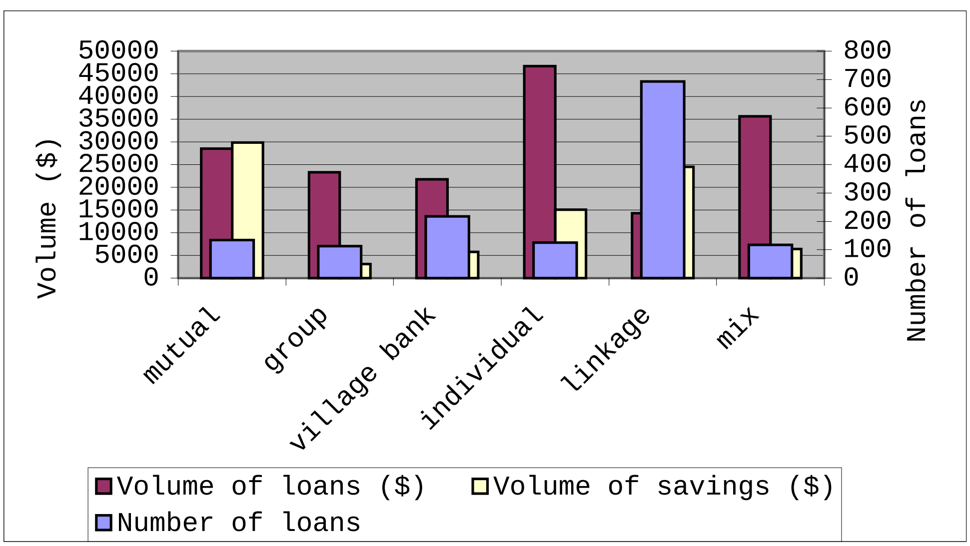
The linkage model and the village banks have the highest staff productivity in terms of number of loans, as they delegate distribution and supervision of the loans to local groups (informal group or village committee) (Figure 1). For the other MFIs, one employee, on average, serves 110–130 loans. For loan volume, the individual approach is clearly above average, compensating for low productivity in number by the large volume disbursed.

Table 9: Distribution of activities, by type of MFI (excluding Indonesia), in percent

	Cooperative	Solidarity group	Village bank	Individual contract	Linkage model	Mixed approach	Total
Number of MFIs	27.8	37.1	16.4	3.9	9.3	5.6	100
Number of borrowers	11.9	80.6	2.1	2.1	0.4	2.8	100
Number of savers	53.8	43.6	1	0.5	0.1	1.1	100
Number of members	41.1	42.4	1.3	12.5	1.4	1.3	100
Volume of savings	67.3	32.3	0.1	0.1	0	0.1	100
Volume of credit	62.2	36.3	0.2	0.7	0	0.7	100

Source: IFPRI surveys on worldwide MFIs, 1999.

Figure 1: Staff productivity, by type of MFI



In terms of outreach, village banks, solidarity groups, and linkage models are the approaches that focus mostly on women clients (Table 10). Village banks offer the smallest volume of transactions. On the other extreme, individual contracts provide the largest average loan, both in absolute terms ($737) and as a percentage of the per capita GNP (173 percent). The individual approach is found to have both a low depth of outreach to women and to the poor in general.

Table 10: Outreach, by type of MFI

OUTREACH	**Cooperative**	**Solidarity group**	**Village bank**	**Individual contract**	**Linkage model**	**Mixed approach**
Average percentage of female (unweighted)	54.6	87.2	83.6	40.4	76.1	76.6
Average percentage of female (weighted by number of members)	41.2	83.7	76.2	28.9	87.2	72.1
Average loan ($)	369	255	122	737	218	306
Average loan as percentage of per capita GDP	94	52	25	173	45	61
Average deposit ($)	301	37	32	78	28	64
Average deposit as percentage of per capita GDP	28	8	6	61	8	14

Source: IFPRI surveys on worldwide MFIs, 1999.

The best results in terms of depth of outreach are achieved by the models that delegate part of the distribution and supervision of the loans to nonsalaried workers, which compensates for the low volume of transactions and perhaps also for additional constraints due, for example, to high illiteracy rates or the remoteness of clients.

If one was to combine the good side of the performance of the different type of institutions, one may rapidly face trade-offs between local, endogenous, and small-scale organization, and large, anonymous, well-staffed structures.

TYPE OF MFIs, BY LEGAL STATUS

MFIs have been classified by legal status: they may be NGOs, cooperatives, registered banking institutions, government organizations (GO), or projects.[13]

In terms of performances, banks record the best staff productivity (187 loans for an amount of $50,000 per employee), but their results are low in terms of depth of outreach, with few women among their clients (40 percent) and high size of transaction (average loan of $425). Cooperatives also have a low depth of outreach (45 percent of women, average loan of $339) and high staff productivity (144 loans, $30,000). On the contrary, NGOs have a good depth of outreach (73 percent of women, average loan of $228), but low staff productivity (104 loans, $12,700). The worst results are recorded for government organizations, with very low productivity and depth of outreach.

Table 11 shows that 91.5 percent of MFIs with more than 100,000 members are regulated, while the same is true for only 16 percent of MFIs with fewer than 20,000 members. There is a large number of unregulated NGOs, accounting for 61.4 percent of the sample. However, in terms of volume of activity, unregulated NGOs represent only a

[13] One hundred institutions for which the status was unavailable are excluded from the tables.

tiny proportion of loans and savings volumes (less than 2 percent of the sample). More than 95 percent of the volume of savings goes through regulated institutions.

Table 11: Regulation of MFIs according to size in number of members (percent)

	0-20,000	20-100,000	>100,000	Total
Regulated (cooperative, bank, government organization)	15.8	51.6	91.5	24.6
Unregulated (NGO, project)	69.0	35.5	8.5	61.4
Not available	15.2	12.9	0	14.0
Number total	538	62	47	650

Source: IFPRI surveys on worldwide MFIs, 1999.

As savings mobilization from the public is one of the main reasons for regulation of MFIs, these observations can give a fresh insight on the debate over regulation of MFIs. Clearly, all MFIs cannot be treated equally, and a huge proportion of the small MFIs could not fall under a formal, banking-type, regulation. The largest MFIs, in particular those mobilizing important savings, must be regulated. For the smallest ones, however, it is highly unlikely that all could be transformed into banks or other formal financial institutions, nor would the regulatory authorities have the capacity to supervise all of them.

However, the implementation of a regulatory framework in a country does not necessarily mean that unregulated MFIs should disappear. It may be important to accept that two kinds of MFIs can coexist:

- larger MFIs that concentrate on financial services, in particular, mobilizing savings, and that are falling under specific national regulation. Thanks to their official recognition in the formal financial system, they may receive loans from the commercial banking sector to leverage their capital.
- NGOs using microfinance tools as one among others to alleviate poverty. In spite of their "informality," these NGOs also have a duty to adhere to minimal internal rules to work on a professional and efficient basis: insure a high rate of repayment, charge interest rates that allow them to recover part of the costs, define appropriate services for their clients, and to not compete unfairly with other MFIs. These NGOs, as they receive funding from donors and remain out of a strict regulatory framework, may have opportunities to test innovations that can be used by the larger MFIs or that may eventually enable growth to scale if the innovation proves successful in the market. On the other hand, this second type of MFI can benefit from the information on regulation and best practices implemented by the first type of MFIs to improve their performance and governance. A few of them may eventually grow to large scale.

5. ROLE AND PERFORMANCE OF MFIs, BY LOCATION

RURAL AND URBAN MFIs

The information on geographic location is missing for 33 percent of MFIs. For the Indonesian cases, most work in a mixed environment. From the data available, we observe that MFIs are predominantly working in both urban and rural areas, presumably to diversify their portfolio of liabilities and assets (Table 12). Only 19.5 percent of MFIs specialize in rural areas where the majority of the poor in the developing world live. In terms of number of members, the results are surprising, with a very low percentage of members served in the urban areas and very small part of the transactions.

Table 12: Volume of activities of MFIs, by geographic location (including Indonesia), in percent

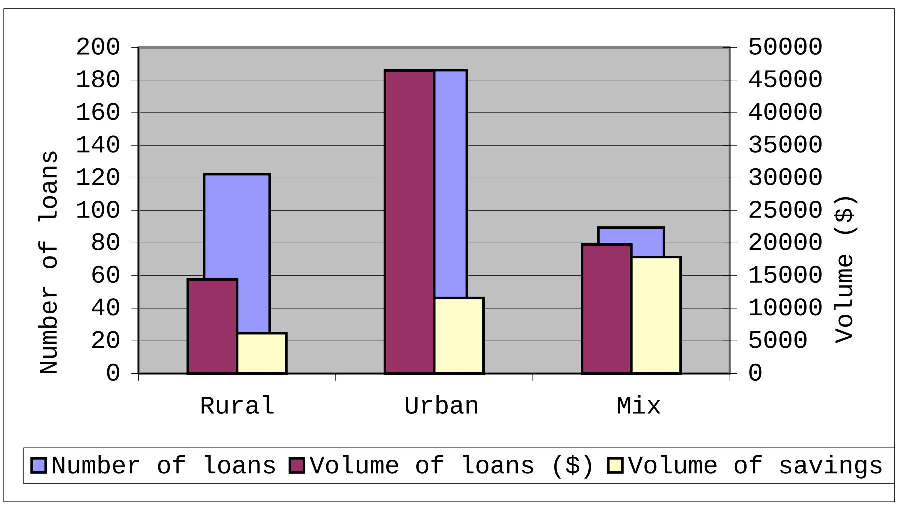
	Rural	Urban	Mixed	Total
Number of MFIs	19.5	7.4	73.1	100
Number of members	59.9	1.9	38.1	100
Volume of savings	39.8	0.4	59.8	100
Volume of credit	38.1	1.5	60.5	100

Source: IFPRI surveys on worldwide MFIs, 1999.

There are several possible explanations. First, the biggest institutions such as the BRIUD, the BAAC, the Grameen Bank, BRAC, and the Agricultural Bank of Viet Nam work in rural or mixed areas and account for the majority of members. They operate in rural, densely populated areas mainly characterized by irrigated agriculture. MFIs with more than 500,000 members account for 46 million members, i.e., 85 percent of the total number of members and, with the exception of three for which data are missing, all work in rural or mixed areas. Second, it seems that MFIs that serve only urban areas remain rather small, due perhaps to a high level of competition with other banking institutions. In the database, the average number of members of urban institutions is 11,000, with a maximum of 162,000 members (Credit Unions Uganda). Finally, only a few MFIs specialize in urban areas, and even those that do also seek to serve rural, or at least periurban, areas.

As expected, staff productivity is higher in urban areas (these areas are more densely populated and there is the possibility of larger transactions) (Figure 2); however, conditions are more difficult for MFIs in mixed areas, with a lower number of loans by staff (perhaps due to the large size of the area in which to reach a diverse clientele). In terms of savings mobilization, MFIs in mixed areas are most productive. Because of their diversified portfolio of loans and savings, they may have smoother cash flows and may be able to offer a variety of savings products on competitive terms. The outreach to women is lowest in rural areas, as is the volume of loan transactions.

Figure 2: Staff productivity, by location



MFIs, BY CONTINENT

Asia is the most developed continent in terms of volume of MFI activities, with 70 percent of the institutions, 77 percent of the members, 55 percent of the savings volume, and 65 percent of the loan volume (Table 13).

Table 13: Volume of activities of MFIs, by continent (including Indonesia)

	Latin America	Africa	Asia
Percentage of MFIs	9.0	21.8	69.2
Percentage of members	12.9	9.9	77.2
Percentage of savings	40.5	5.0	54.5
Percentage of credit	32.5	2.6	64.9

Source: IFPRI surveys on worldwide MFIs, 1999.

Considering the relative size of the Asian population (74.6 percent of the population), and excluding Indonesia, Africa compares well in terms of number of MFIs (45 percent) (Tables 14 and 15). Still, Asia retains the majority of the savings and loan volumes. The number of MFIs and the number of clients remain more modest in Latin America compared to Asia; however, they mobilize an impressive amount of savings and distribute a significant amount of loans.

Table 14: Total population and average per capita GNP, by continent

	Latin America	Africa	Asia
Total population (million)	426	551	2,870
Percentage of total population	11.1	14.3	74.6
Average per capita GNP ($)	2,673	748	1,194

Source: Excell database (1998).

Table 15: Volume of activities of MFIs, by continent (excluding Indonesia)

	Latin America	Africa	Asia
Percentage of MFIs	18.6	45.0	36.4
Percentage of members	19.9	15.4	64.7
Average members per MFI (*1,000)	62	19	95
Percentage of savings	45.2	5.6	49.2
Average vol. of savings per MFI (millions $)	79	3	28
Percentage of credit	33.9	27	63.4
Average vol. of credit per MFI (millions $)	69	2	52

Source: IFPRI surveys on worldwide MFIs, 1999.

African MFIs have the lowest repayment rates (Table 16). On the other extreme, Asia benefits from good repayment rates even if, on average, it does not have the highest per capita GNP. In the case of Africa, other conditions may explain these results, such as the weak enforcement of laws, and exposure to individual and covariant risks.

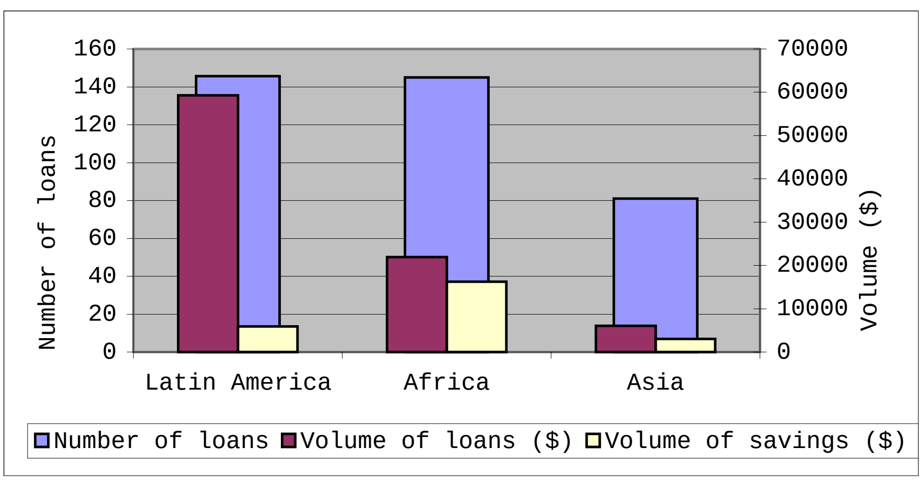
Table 16: Average performance of MFIs, by continent

	Latin America	Africa	Asia
REPAYMENT			
Repayment (unweighted, percent)	93.1	88.7	95.6
Repayment (weighted by volume of loans, percent)	94.3	91.6	98.6
STAFF PRODUCTIVITY			
Number of loans	146	145	81
Volume of loans ($)	59,329	21,955	6,037
Volume of savings ($)	5,888	16,253	3,034
OUTREACH			
Average percentage of female (nonweighted)	73.3	69.9	87.8
Average percentage of female (weighted by number of members)	53.9	47.5	44.8
Average loan ($)	418	261	153
Average loan as percentage of per capita GDP	33	82	35
Average deposit ($)	590	75	62
Average deposit as percentage of per capita GDP	20	24	7

Source: IFPRI surveys on worldwide MFIs, 1999.

Asian productivity is very low, both in terms of number of clients and volume, compared to Africa and Latin America (Figure 3). This may be due to the lower cost of labor, compared to professional staff in Africa and Latin America. This is a great advantage for Asian MFIs and may explain Asia's high repayment rates. Surprisingly, staff productivity in terms of number of clients is the same between Latin America and Africa, whereas the authors expected that, due to constraints of infrastructure and low population density, productivity in Africa would have been lowest. However, employees in Latin America have loan portfolios three times larger than their African counterparts. Staff productivity in Africa is good in terms of number of loans, but the higher rates of poverty among their clients lead to lower transaction volume.

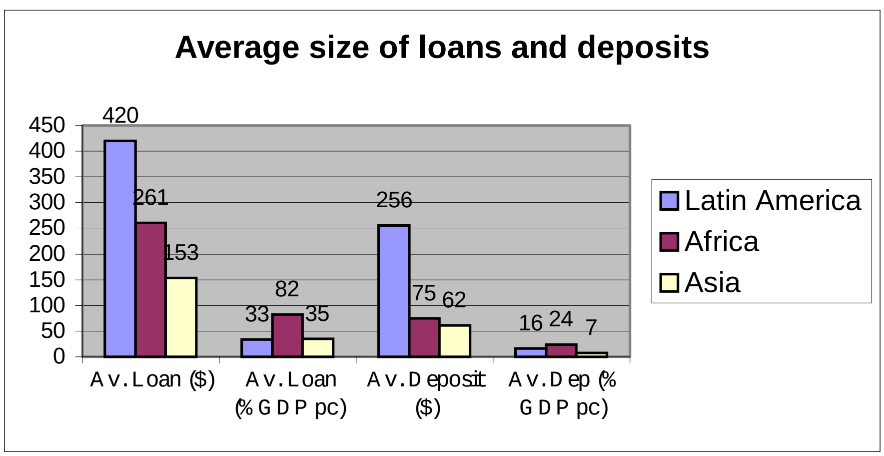
Figure 3: Staff productivity, by continent



With unweighted results, Asia reaches significantly more women, but this is only the case for small institutions. When results are weighted by number of members, the best results are in Latin America, with 54 percent female members, whereas African and Asian MFIs have fewer than 50 percent women as members.

The largest transactions take place in Latin America, the smallest in Asia. Interestingly, in terms of percentage of per capita GDP, Africa has the largest transactions. If African MFIs wish to increase their depth of outreach, they would need to decrease the volume of transactions. In fact, the large volume of loans as a percentage of per capita GDP in Africa could be partly due to the predominance of cooperatives, which reach a wealthier population. In Asia, solidarity groups dominate, while village banks are largely represented in Latin America.

Figure 4: Size of loans and deposits



African and Latin American MFIs work mostly in mixed urban and rural environments (65 and 92 percent of the members, respectively), while Asian MFIs focus more on rural areas (75 percent of the members). In Africa and Latin America, the relatively low presence of MFIs in rural areas, even though the populations are predominantly rural, implies that the rural depth of outreach is low. In particular, agricultural finance for smallholders remains underexploited.

6. SUMMARY AND CONCLUSIONS

MFIs provide extensive coverage of Asia, Africa, and Latin America, and have adopted a wide range of innovations to overcome various constraints. However, they require stable macroeconomic and political environments to develop. Unstable countries are still out of reach of the international world of microfinance. On the other extreme, Southeast Asia, Latin America, and East and West Africa receive most of the international support and account for the majority of the clients and the volumes involved in microfinance.

On the whole, MFIs reach 54 million members, who have received $18 billion in loans and accumulated $13 billion in savings. With these figures, the Micro-Credit Summit objective to reach 100 million poor people by 2005 appears be achievable if one were to assume that most of the current MFI clients were “poor.” However, MFIs are highly concentrated in size (3 percent of the largest MFIs reach 80 percent of the members). If the stakeholders of the Micro-Credit Summit wish to achieve their goal, further client growth among the bigger MFIs should be necessary. This is because the many small MFIs will not contribute much to the total numbers even if they would double or triple their client numbers by 2005. However, it will be necessary to support the change of scale of small but efficient MFIs.

In terms of lending technologies, cooperatives are responsible for the largest proportion of the credit volume and savings transactions, while solidarity groups have a very active policy in terms of number of borrowers. The village bank and linkage models, thanks to the delegation of supervision to local voluntary staff, record higher staff productivity and achieve better depth of outreach than other MFIs. Surprisingly, there were relatively few urban-oriented MFIs, and those that did focus in urban areas tended to reach peri-urban and/or rural areas as well.

In terms of regulation and legal status, more than 95 percent of the volume of microfinance transactions goes through regulated institutions (bank or cooperative) and although 60 percent of MFIs are still unregulated, they only account for less than 2 percent of the volume of savings mobilized and loans disbursed.

By continent, Asia accounts for the largest volume of activity and employs the largest number of staff (thanks to low labor costs). This allows for close monitoring and supervision. Africa is very active in the field of microfinance. Many efforts have been made to improve staff productivity, but the continent still faces the constraints of poverty and illiteracy, both of which limit transaction volume. Moreover, loan sizes are already high when expressed as a percentage of per capita GNP, and increasing the size of loan transactions would endanger the depth of outreach. Rural Africa still has relatively lower outreach, which calls for continued efforts to improve rural and agricultural finance. Latin America is extensively covered by MFIs and records the largest volume per transaction. However, MFIs there work essentially in urban or mixed areas, and rural outreach remains low.

More households in developing countries as currently reached are likely to benefit from future growth of the MFI sector. To support future growth, it will be necessary to support MFIs in their efforts to find demand-oriented products to broaden their clientele and to innovate in cost-efficient service delivery systems, so that they can sustainably increase their scale in terms of number of clients, volume of activity, and relative poverty level of clients.

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