

# The Paradigm Shift in Microfinance: A Perspective from HIID

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## ABSTRACT

This paper, which was presented at the HIID History Conference held in Bermuda in March 1995, analyzes HIID's role in the development of sustainable microfinance.

The paper is about the history of an idea - that the massive demand for microfinance in developing countries can be supplied by sustainable institutions providing financial services commercially, and that these services can have important effects on social and economic & p

development. This has now been well demonstrated on a large scale.

We discuss here HIID's role in the formulation of the initial hypotheses and HIID's contributions in planning and coordinating the underlying research, advising on the policies and implementation strategies that put concept into practice, analyzing the results, and disseminating the findings. Drawing on work in Asia, Africa, and Latin America, the paper analyzes the paradigm shift in microfinance from government and donor-funded subsidized credit to sustainable financial intermediation. This shift has occurred because of the work of many people in many countries. This paper, however, is limited to HIID's contribution. The policy implications of the 'new microfinance' for governments, donors, banks, and NGOs are explored.

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THE PARADIGM SHIFT IN MICROFINANCE:  
A PERSPECTIVE FROM HIID

by

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This paper is about the history of an idea. It reviews the evolution of a concept through multiple HIID projects over a 15-year period. The idea - that the massive demand for microfinance in developing countries<sup>2</sup> can be supplied by sustainable institutions providing financial services commercially, and that these services can have important effects on social and economic development - has now been well demonstrated on a large scale. We discuss here HIID's role in the formulation of the initial hypotheses and HIID's contributions in planning and coordinating the underlying research, advising on the policies and implementation strategies that put concept into practice, analyzing the results, and disseminating the findings.<sup>3</sup>

The paradigm shift in microfinance presently underway in the developing world is marked by the change from government and donor-funded<sup>4</sup> subsidized credit to sustainable financial intermediation. This has occurred because of the work of many people in many countries. This paper, however, is limited to HIID's contributions. Some of the major results of six HIID projects and other HIID work in Asia, Latin America, and Africa are incorporated into this discussion.

Institutional microfinance is characterized worldwide by what has been called the 'absurd gap' between demand and institutional supply.<sup>5</sup> Thus, despite the widespread demand for financial services - for both credit and savings facilities<sup>6</sup> - it is estimated that institutional finance is unavailable to about 90 percent of all households in developing countries.<sup>7</sup> This includes most of the poor people in the developing world. The primary reasons for the low institutional supply of microfinance demand are: (1) the pervasive misunderstandings about local financial

markets that are widespread on the part of many governments, financial institutions, and donor agencies; and (2) the low level of influence in their respective societies of those who constitute the demand. Changing the former - on which HIID has worked for over 15 years - helps, of course, to change the latter.

Institutional commercial microfinance is an important component of effective social and economic development. However, this is not widely known. Where available, savings services permit people to store wealth and seasonal or temporary excess liquidity safely for future use, and to obtain returns on their assets. Credit services enable the use of anticipated income for present investment or consumption. Commercial institutions supplying microfinance increase the options of the working poor by helping them to decrease risks, to obtain higher returns on investment, to improve management and productivity, and to improve the quality of their lives and those of their dependents.<sup>8</sup>

Within the last decade, a new, sustainable approach to microfinance has been developed by the Bank Rakyat Indonesia (BRI),<sup>9</sup> and has been demonstrated successfully throughout Indonesia, the world's fourth largest country. The shift there from government-subsidized credit delivery to profitable financial intermediation at the local level has enabled, for the first time, the demand for microfinance to be met on the large scale.

A decade ago, it was not obvious that this would occur. At that time there were no large-scale examples of commercial microfinance in any developing country. Derived from supply-leading finance theory, the 'old paradigm' of subsidized credit for lower-income borrowers in rural areas was well entrenched in Indonesia during the 1970s, as in most of the developing world. Microfinance as a commercial institutional activity was generally perceived by policymakers and by the formal financial sector as unimportant for the economy, unprofitable for financial institutions, and unnecessary for the poor. This remains the prevailing view in most developing countries today. However, the 'new microfinance' -

profitable, sustainable financial intermediation with services delivered at the local level at full cost- was pioneered in Indonesia,<sup>10</sup> and is beginning to be adapted elsewhere. The new ideas are spreading rapidly.

The examples of BRI and of other self-sufficient institutions that provide finance to large numbers of lower-income households are of significance globally for three reasons. First, it has been demonstrated within the last decade that commercial financial institutions can provide credit profitably from about 5 to 20 percent of the interest rates that lower-income borrowers can obtain from the informal commercial credit market.<sup>11</sup> Second, the massive demand for institutional microfinance worldwide is far too large to be met by donor or government funds. Third, we now know that it is possible for commercial institutions to provide microfinance profitably in widely varied contexts. What is essential is an enabling macro-economic and regulatory environment, a reasonable level of political stability, and a sufficient population density and degree of monetization.

Banks and other financial institutions in Bolivia, Colombia, Costa Rica, the Dominican Republic, Ecuador, the Cameroons, Egypt, Kenya, Senegal, South Africa, Bangladesh, India, the Philippines, and others - in addition to a number of institutions in Indonesia - have either established commercial microfinance programs or are in various stages of actively learning about or becoming self-sufficient providers of commercial microfinance. Many have visited BRI in Indonesia to learn about profitable financial intermediation at the local level.

The old and new paradigms for microfinance,<sup>12</sup> can be contrasted as follows:

### **The Old Paradigm: Subsidized Credit Programs**

1. Lower-income people need credit for productive inputs.

2. Because their incomes are low, they cannot save enough for the inputs they need.
3. They also cannot afford to pay the costs of the credit they need.
4. Therefore subsidized credit programs are required.
5. Lower-income people are generally uneducated and do not trust banks; they either do not save, or prefer to save in non-financial forms.
6. If such people are to save in banks, they need to be taught financial discipline. Therefore, compulsory savings are required as a condition of obtaining an institutional loan.

#### **The New Paradigm: Sustainable Financial Intermediation**

1. Subsidized credit programs of many financial institutions serving the local areas of developing countries have consistently resulted in high arrears and heavy losses.<sup>13</sup>
2. Subsidized loans are provided to the borrower at below market rates, and are therefore desirable. These loans encourage corruption, and in the process often reach the local elites rather than the target population of lower-income borrowers.
3. Credit subsidies provided to borrowers at the local level frequently discourage institutional savings mobilization. This occurs because regulations often require that the interest rates charged for subsidized loans are lower than the interest rates paid on deposits, thus providing a negative spread and a disincentive for the institution to capture savings. Despite the relatively high interest rates mandated on deposits in such cases, institutions without an incentive for savings mobilization find ways not to attract depositors (restrictions on withdrawals, cumbersome procedures, etc.).
4. There is extensive demand for microcredit at commercial interest rates on the part of many lower-income people in developing countries. Where microcredit has been provided by

institutions at commercial interest rates, and where local savings have been mobilized, loans tend to be widely available and repayment rates high. Repayment is high primarily because borrowers want to keep open the option to borrow again - at what are highly attractive rates in comparison with the interest rates charged on the informal commercial market.

5. When credit subsidies are replaced by commercial microfinance, there can be substantial savings to governments and donors. These accrue both from the subsidies not provided and from the losses not incurred. Where needed, these savings can be made available for poverty alleviation programs.
6. Lower-income people generally do not need to be taught to save; they already save. In case of emergencies, they have fewer options than wealthier people and therefore many save regularly in cash kept in the house and in a variety of non-financial forms such as gold, agricultural commodities, and durable goods.<sup>14</sup>
7. There is massive demand at the local level in developing countries for institutional savings services that offer a combination of security, convenience, liquidity, and returns. Outside Indonesia, however, this demand is usually unrecognized and very few institutions provide such services.
8. Voluntary savings contrast sharply with compulsory savings required as a condition for credit; these reflect two different underlying philosophies. The latter assumes that the clients must be taught financial discipline and 'the savings habit'. The former, a basic component of the 'new microfinance', assumes that most of the working poor already save, and that what is required for effective savings mobilization is for the institution to learn how to provide instruments and services that are appropriate for local demand.
9. There is higher demand for voluntary savings services than for credit at the local level (BRI's unit banking system has six

- times as many deposit accounts as loans, and more than twice the rupiah amount in deposits than in credit outstanding).
10. Given enabling macro-economic, political, regulatory, and demographic conditions, commercial institutions can be developed to provide financial intermediation, delivering services at the local level profitably, sustainably, and without subsidy.
  11. In contrast, institutions that on-lend donor funds at subsidized interest rates, that combine social and financial services, and that do not mobilize voluntary savings effectively cannot become self-sufficient. Some, such as the Grameen Bank of Bangladesh, are highly effective at providing credit to poor people and recovering loans. However, institutions of this type are dependent on continuing donor or government injections of low-cost funds. Unless they raise interest rates on loans, mobilize voluntary savings, and separate social and financial activities, these institutions cannot become sustainable.
  12. The demand for institutional microfinance can be met only by sustainable financial institutions. There are not enough donor and government funds to meet a significant proportion of the worldwide demand for microfinance. The Grameen model is not globally affordable. However, the Indonesian model can be both adaptable and affordable for some institutions in many developing countries.
  13. When one or more institutions has demonstrated in a particular country that microfinance can be profitable, the formal banking sector will begin to enter the market. This has already occurred in Indonesia where large private banks have become aware of BRI's profits and have entered the microfinance market for the first time.
  14. Sustainable microfinance can be achieved in a country without great expenditures on the part of government or donors. Only the institutions that provide the initial examples may need

assistance; later the country's own banking sector will learn that microfinance represents a large, unsupplied, and profitable market.

### **The Development of Sustainable Microfinance in Indonesia**

Each of Indonesia's five state-owned commercial banks has traditionally held particular responsibilities in addition to its general banking activities. The special assignment of the Bank Rakyat Indonesia has been the provision of banking services to the rural areas, with particular emphasis on agricultural credit. BRI's unit banking system<sup>15</sup> was originally created as a channeling agent for BIMAS,<sup>16</sup> the credit component of Indonesia's massive effort to reach national rice self-sufficiency.<sup>17</sup> The unit banking system is a division of BRI; the bank also provides commercial, corporate, and international banking services in addition to local-level banking.

In the early 1970s, over 3600 unit banks were established at the sub-district level; these functioned primarily as channeling agents for the BIMAS program and other subsidized rural lending programs. Savings accounts were offered in the unit banks beginning in the mid-1970s. However, annual interest rates set by the government at 12 percent for loans and 15 percent for most deposits discouraged active savings mobilization.

In 1979 HIID was asked by Indonesia's Ministry of Finance to advise on the national rice intensification program, one of four programs reviewed by HIID's Development Program Implementation Studies (DPIS).<sup>18</sup> A large-scale interdisciplinary study of the rice program at national, regional, district, sub-district, and village levels in four provinces of Indonesia, with less intensive work in other provinces, was carried out from 1979-1983. HIID's 400-page report concluded that the dramatic rise in rice production was made possible by a combination of factors: an appropriate and effectively implemented price policy; available and affordable

inputs; rapid learning among rice farmers; improvements in infrastructure, especially irrigation and roads; the continuing development of new high-yielding, early-maturing rice varieties at the International Rice Research Institute (IRRI) and provision of these seeds to Indonesia.<sup>19</sup> The credit component of the program was conspicuously absent from the list of forces driving the success of Indonesia's 'rice seed-fertilizer revolution'.

The report concluded that BRI's approach to financial intermediation at the local level was similar to that found in many developing countries: institutional credit was subsidized, the credit program was poorly planned, the low-interest BIMAS loans typically bypassed the poor, arrears and losses were high, deposits were low. During 1983 BRI gave serious consideration to closing down its unit banking system. As a then-high-level BRI official said to the author, "The unit banking system gets in the way of our real banking activities."

The HIID report recommended instead that the subsidized unit banks be transformed into a sustainable system of commercial banking at the local level, and that a program of general rural credit at commercial interest rates be implemented through the unit banking system. The recommendation for the shift from credit delivery programs to financial intermediation was based on five basic hypotheses, all of which have since been proven correct:

1. There is massive demand for commercial microfinance at the local level.
2. This demand can be supplied only through financially viable institutions.
3. Supplying microfinance demand and building sustainable financial institutions are mutually reinforcing goals.
4. Mobilization of voluntary public savings is required for the large-scale commercial financial intermediation that is necessary to meet the demand for microfinancial services at the local level.

5. Microfinance can be both socially and economically profitable.

After extensive, wide-ranging discussions, the HIID recommendations were accepted by the Ministry of Finance. Concurrently, the Indonesian government began a series of major financial reforms. The first of these, announced in June 1983, permitted government banks to set their own interest rates on most loans and deposits. Among its other purposes, this deregulation served to provide an enabling environment for the transformation of BRI's unit banks. During 1983, HIID advisors worked closely with the Ministry of Finance and BRI to prepare policy briefings and detailed recommendations for the new local banking system. Extensive research was also carried out at this time on assessing local demand for institutional deposit instruments.

On January 1, 1984 BRI began its new program of general rural credit, called KUPEDES,<sup>20</sup> offered throughout the unit banking network. During 1984-1985, new deposit instruments were designed for the unit banks. These were then tested in pilot projects carried out by BRI, with advice from HIID and the Center for Policy and Implementation Studies (CPIS), a government-supported foundation that developed out of HIID's DPIS project with the Ministry of Finance. By 1986, a package of new deposit instruments was introduced providing, for the first time at the local level, a combination of security, convenience, liquidity, and returns. These instruments, along with the KUPEDES credit program, were offered throughout BRI's unit banking system.

**Why did the Indonesian Government decide to build  
BRI's local-level banking system?**

In the early 1980s, the government anticipated a possible significant decline in the real value of oil revenues, and began to seek alternative sources of government revenue and to undertake its

wide-ranging financial reforms. In this context, it was recognized that a competitive economy and new sources of investment would be required. The private sector would have to become responsible for a significantly larger share of savings and investment than had been possible in the 1970s, and the state banks, instead of serving primarily as channeling agents for government subsidies, would be transformed into commercial banks. As part of the wider financial deregulation process, banks were given more autonomy in decision-making and encouraged to expand their products and activities. These reforms provided the background to the 1983 decision to convert BRI's 'rice banks' into 'real banks'. Commercial microfinance in the unit banks began in 1984 in the rural areas; in 1989 the unit banking system was extended to urban areas.

**Why did BRI, unlike other financial institutions serving the local level in developing countries around the world, decide to emphasize voluntary savings mobilization?**

Although there were suggestions in 1984 that the new commercial loan program could become self-sustaining even without substantial local savings, that approach was rejected. There were four primary reasons that the government and the BRI decided to plan and implement the credit and savings components of the program together:

**(a) To encourage private sector savings and investment**

This was a time when the Indonesian government was anticipating declining oil revenues and seeking increased private sector savings and investment. In this context, it was decided that extensive long-term funding for a nationwide credit program could not be committed from Bank Indonesia, the central bank.

**(b) To supply demand at the local level for credit at commercial interest rates**

The idea behind the commercial KUPEDES credit program was to supply the country's demand at the local level for credit at commercial interest rates. It was correctly anticipated that this would eventually require a substantially greater amount of financing than had been required for the total amount of all previous local-level credit programs.

**(c) To limit government risk**

The risk was considered too high for long-term commitment of central bank funds. It was well known that many local-level credit programs in Indonesia and in developing countries throughout the world had a history of high arrears. There was no successful model of financial intermediation on a significant scale at the local level that could be found in any developing country. Indonesia's economics ministers recognized the potential for a large-scale banking system serving customers at the local level and supported its introduction with government funding; they also recognized the importance of limiting government risk.

**(d) To encourage local-level savings**

As part of their wider policy of encouraging private savings, the government wanted to arrange for the supply of what was accurately estimated as a large potential demand for savings in financial institutions at the local level. It was thought that an approach which offered savings instruments designed to be appropriate for local demand could generally provide customers with positive real returns while also building the long-term viability of the unit banking system. Both results would contribute to economic development at the local level.

## **BRI's Unit Banking System (1984-1995)**

The first stage of HIID's advising on BRI's unit banking system under the DPIS project (1979-1983) concerned the transformation of the system from a channeling agent for subsidized government credit to a commercial banking network. In the second stage of its work with BRI (1984-1995), HIID advised BRI on the many phases of development of its unit banking system.<sup>21</sup> A brief review of this system, and its achievement of self-sufficiency, will be useful for understanding the significance of the paradigm shift under discussion.

Since January 1, 1984, BRI's unit banks have offered the KUPEDDES program of general rural credit which provides loans from US \$12 to \$12,000. Realizing that most Indonesian households have multiple income sources, KUPEDDES loans are provided for any viable productive activity; they are often used for financing several economic activities within one household. While longer-term agricultural loans are available under KUPEDDES, many borrowers with seasonal incomes from crops prefer to repay monthly from other household income (petty trading, services, small industry, etc.). Borrowers may reborrow as many times as they wish, so long as they have repaid their previous loan fully and on time. At the end of 1994, the average KUPEDDES loan was about \$1050, with about 70 percent of the loans below the average.

Since delivering small-scale financial services at the local level is considerably more expensive than providing services to larger customers at urban bank branches, an annual effective interest rate of about 33 percent is charged for KUPEDDES loans at the BRI units. This interest rate, equivalent to about 1.5 percent per month flat rate on the original balance, is a small fraction of the interest rates charged to lower-income borrowers by informal commercial lenders. Yet it enables the unit banking system to run profitably. Inflation has remained below 10 percent during the

past decade; the effective real rate of KUPEDES interest in 1993 was about 24 percent.

HIID, working with CPIS, continued to help BRI with research on local demand for deposit instruments and services. These studies were carried out throughout Indonesia in order to understand local savings habits and to learn what types of deposit accounts would meet the different kinds of local demand for savings instruments. HIID worked with CPIS and BRI to learn the forms in which local people save (hoarded cash, gold, animals, agricultural products, raw materials, construction materials, etc.), and to understand the purposes for which they save in the different forms. Institutional deposit instruments were then designed to provide significantly better savings options, judged by the peoples' own standards, than the savers could accomplish by themselves. The research on demand showed that a fully liquid deposit account, not then available at the units, was greatly in demand. In addition, it became clear that a package of several instruments would be needed to meet savers' multiple requirements.

Since 1985, a set of deposit accounts has been offered at BRI's unit banks. These offer the depositor security at convenient locations, and customers can choose among instruments offering different ratios of liquidity and returns. Three main types of savings instruments are featured in all unit banks: a fully liquid account which pays interest (SIMPEDES and SIMASKOT)<sup>22</sup>; a fixed deposit account which is the least liquid of the accounts and generally pays the highest interest rate; and a semi-liquid account which falls between the other two instruments in both degree of liquidity and interest rate paid. The average deposit balance in 1994 for all types of accounts is about \$185. All savings is voluntary; no compulsory savings are required to obtain loans.

The spread between interest rates for loans and deposits at BRI's units has been set to enable revenues to cover all financial costs (none of which is subsidized) as well as all non-financial costs, and to return a profit. The unit banking system broke even

at the end of 1985, after only two years of operating commercially, and the system has been profitable every year since. In addition to the enabling macro-economic and political environment, its success is based on: (1) knowledge of local markets; (2) convenient, secure unit bank locations at the local level; (3) a simple, uniform, and appropriate set of instruments and services; (4) simple, transparent reporting procedures; (5) a spread between loan and deposit interest rates that enables institutional profitability; (6) a system under which each unit operates as a 'profit center,' with the staff receiving performance incentives based on the unit's outreach and profitability; (7) extensive staff training; and (8) good management of the unit banking system as a whole.

In the 11 years between January 1, 1984 when the program began, and December 31, 1994, BRI's unit banking system extended Rp 14.2 trillion in 14.8 million KUPEDES loans.<sup>23</sup> As of the end of 1994, there is about \$1.1 billion in KUPEDES credit outstanding to about 2.1 million borrowers. The KUPEDES long term loss ratio as of the same date was 2.6 percent.<sup>24</sup> The low rate of arrears is attributable primarily to the fact that borrowers repay promptly because they want to retain the option to reborrow; there is also a monetary incentive for prompt repayment. For many KUPEDES borrowers, the only alternative is to borrow from the informal commercial market at very much higher interest rates.

In the period from the early 1970s until the financial deregulation of June 1983, the unit banking system had mobilized only about \$17 million nationwide in over 3600 unit banks. This was widely attributed within the government and the formal financial sector to the lack of local demand for financial services, absence of 'bank-mindedness', and mistrust of banks that were assumed to characterize Indonesia's rural population. These assumptions were wrong. The unit banking system now holds deposits of about \$2.4 billion in about 13 million deposit accounts, as of December 31, 1994. SIMPEDES and SIMASKOT, which permit an unlimited number of

withdrawals are the most popular, together accounting for 79 percent of the deposits. Because the instruments and services were designed with the extensive knowledge of local financial markets that had been acquired by BRI staff, these were immediately in demand and have been so continually. Unit bank deposits, a highly stable source of funds, finance all KUPEDES loans. In addition to the activities of its unit banking system, BRI supervises and in some cases provides loans to capitalize over 5000 village-owned banks (known as Badan Kredit Desa). The BKD system, which is also profitable and self-sufficient, serves about a million clients in Java and Madura. At the BKDs, as of the end of 1993, the average loan was about \$75 and the average deposit balance about \$9. Most loans are for short terms, usually for 10-12 weeks. Interest rates are set by each village bank; the annual effective interest rate for loans ranges from about 70 to 90 percent.

Financial services are thus widely available to lower-income clients throughout Indonesia. As of January 1993, 24 percent of KUPEDES loans were below about \$242, and another 38 percent were between about \$242 and \$484. At the same time, 86 percent of unit bank deposit accounts were below \$242, while 46 percent were below \$12. A 1988 KUPEDES impact survey found that of its 192 respondents, 92 percent had never before received a loan from a bank or government agency. One-third of the respondents reported monthly household incomes of below \$78.<sup>25</sup> About one-quarter of the borrowers in the survey were women, although the benefit to women is larger since some women's enterprises are capitalized by KUPEDES loans taken by male relatives. When BRI extended its unit banking services to urban neighborhoods in 1989, it was found that the urban units became net depositors to the system. It seems likely, therefore, that the unit bank system serves to counteract 'urban bias' in the economy.

BRI's unit banking system is now internationally recognized as the leading sustainable microfinance program in the developing world. Many central banks, financial institutions in developing

countries, and donor agencies and foundations send representatives to visit BRI each year. HIID is now working with BRI to develop an instructional program for BRI's many foreign visitors. This has brought HIID advisors together with people interested in developing commercial microfinance from over 20 countries.

### **The Bank Dagang Bali**

During the 1990s, it appeared that some smaller private financial institutions found it difficult to learn directly from BRI. As a division of a large state-owned bank, BRI's unit banking system is not easily comparable to small private institutions. Therefore, a study of the Bank Dagang Bali (BDB), a private bank in Indonesia, was carried out during 1994-1995.<sup>26</sup> BDB has provided financial services profitably to lower-income people since 1970. This study was undertaken to document and make available the history of what may be the oldest bank in the world providing extensive and continuous commercial microfinance.

BDB was opened in 1970 by a husband and wife who had long previous experience as microentrepreneurs and informal commercial lenders. As insiders to the microfinance market in Bali, they understood that there was large, unsupplied, demand for commercial credit and savings services among lower-income people. They used this knowledge to create the first private bank in Bali. Unlike government banks at that time, a private bank could provide microfinance profitably since interest rates at private banks did not come under the same regulations as those of state banks. BDB opened in September 1970 with about \$55,000 in capital, a small office, and a small staff which, however, included three retired BRI staff who were hired to help manage the bank. BDB grew steadily over the years, and as of December 31, 1994, BDB - still a solely owned private bank - serves over 346,000 clients, and has about \$91 million in deposits and about \$76 million in credit outstanding.

The annual effective interest rates on most small loans is about 30 percent, and repayment rates have been consistently high. Loans in arrears over 3 months were 0.01 percent as of December 31, 1994. BDB has been profitable every year since it opened, and is fully self-sufficient. During the 1990s, annual before-tax profits have ranged from about \$1 million to about \$1.7 million.

BDB is extremely active on the savings side of its microfinance activities and provides many services, including the maintenance of daily routes on which deposits are collected and withdrawals processed at the customer's home or place of work. Savers of all income groups, including the lower levels of the working poor, save regularly - often daily - in BDB. As of December 31, 1994, the average deposit account, including all types of accounts, was \$263. BDB's design and implementation of voluntary savings instruments and services for lower-income people are probably the most highly developed of any financial institution anywhere. BDB has over 30 times as many deposit accounts as outstanding loans. Since mobilization of voluntary savings is crucial for institutional self-sufficiency, many financial institutions elsewhere have expressed interest in learning from BDB as well as from BRI.

Beginning in the early 1980s, HIID advisors have visited BDB on numerous occasions. With the permission of BDB, some of the principles and methods of sustainable microfinance developed there were adapted into BRI's unit banking system, as the latter developed during the 1980s.

### **Adapting the Lessons from BRI and BDB**

Several HIID projects have been undertaken to help banks and other financial institutions in developing countries to learn and adapt the lessons of the 'new microfinance', as developed in Indonesia. Some grew out of discussions with BRI visitors. A number of publications have resulted from HIID's work with BRI, including

a book authored jointly with BRI's Managing Director responsible for the unit banking system and the General Manager of the Village Units Business Division.<sup>27</sup>

HIID projects, as well as other recent activities by this author that relate to the spread of sustainable microfinance in developing countries, include: (1) advisory services to BancoSol in Bolivia, a private bank which opened in 1992, specializing in commercial microfinance; (2) a HIID project on the development of rural finance in Bolivia; (3) advisory services to the Kenya Rural Enterprise Program to help K-REP make the transition from an NGO providing credit to lower-income borrowers to a sustainable financial intermediary; (4) a HIID project with Bank Danamon, the second largest private bank in Indonesia, which has decided to enter the local financial market; (5) advisory services to the USAID Mission in India to provide information about sustainable microfinance to the Government of India and to Indian private banks and NGOs that provide credit to lower-income people; and (6) dissemination of the principles and experiences of the new microfinance paradigm through invited lectures, workshop participation, and course teaching for U.S. and developing country government departments, financial institutions, international donor agencies, universities, and NGOs.

The unmistakable conclusion is that the Indonesian approach to microfinance is adaptable in different ways to many different conditions. There are, of course, special circumstances in particular countries that provide both constraints and opportunities for sustainable microfinance. However, the new paradigm is based on both profitability and flexibility. The varying conditions under which the broad principles of commercial microfinance have been shown to work can be demonstrated from HIID's work in other institutions and other countries.

## **BancoSol (Bolivia)**

Countless NGOs provide microcredit to borrowers in the developing world. Usually, however, these institutions do not collect voluntary savings. In some cases, this is because the NGOs are not permitted to do so, and in others because they have little incentive to mobilize savings since they are provided with continued injections of low-cost funds from governments or donors. Among financial institutions that want to become self-sufficient, the largest demand for technical assistance is from those that want to learn how to add voluntary savings to an already-existing loan portfolio.

BancoSol in Bolivia is the probably first bank in Latin America built to provide financial services for microenterprises. HIID's advisory work with this bank provides a good example of adaptation of lessons from Indonesia. BancoSol was created out of PRODEM, an NGO that provides credit to microentrepreneurs. PRODEM was founded in 1986 by ACCION International, a U.S.- based NGO operating in Latin America, and by a group of Bolivian business leaders. Funding was provided by USAID, international and Bolivian foundations, and by the Bolivian private sector. PRODEM became highly successful in delivering and recovering microcredit provided at commercial interest rates.

However, being donor funded, PRODEM remained capital constrained. Studies of PRODEM's activities indicated that the PRODEM credit program reached less than 2 percent of estimated demand. Yet as an NGO, PRODEM was legally restricted from seeking funding from client savings, commercial debt, or central bank loan. In order to mobilize other sources of funds, expand the volume of lending, and provide full financial services to microentrepreneurs, PRODEM's Board of Directors decided to open a private commercial bank serving microenterprises. In 1991 members of the PRODEM Board and its managers visited BRI, in particular to learn about the mobilization of voluntary savings. BancoSol was opened in 1992; as

a bank it is permitted to mobilize voluntary deposits and to assume commercial debt.

In 1992 at the request of BancoSol, USAID, and the GEMINI project, this author began advising the bank on its development as a financial intermediary, with particular emphasis on deposit mobilization. Studies of demand for savings among lower-income households and enterprises were conducted, using techniques for staff training and field research adapted from those developed at BRI. BancoSol then began two pilot projects in savings mobilization, again adapted from the BRI experience with pilot projects. The three main deposit instruments of the BRI units were modified to suit Bolivian conditions and were offered in the pilot projects where they achieved good results. Previously deposits in these branches, as in the bank generally, were primarily compulsory savings required as a condition of obtaining a loan. When the new savings instruments were offered, the requirement of mandatory savings was dropped. Deposits in the two pilot branches increased by over 550 percent in one year. By 1994, BancoSol began to expand its new savings instruments and services throughout all its 29 branches. However, it is too early to assess the results of BancoSol's savings services which will depend in large part on how effectively the expansion phase of savings mobilization is implemented.

In the meanwhile, BancoSol is able to access commercial loans to finance its rapidly increasing loan portfolio. In 1992 when the bank opened, it inherited from PRODEM a loan portfolio of \$8.8 million; by early 1995 the portfolio had reached \$76.2 million. In 1994, less than three years after it opened, the bank became fully self sufficient and able to operate without subsidy. BancoSol, which reaches about 9 percent of the country's estimated approximately 675,000 microenterprises, already has more clients than all of Bolivia's other commercial banks combined.

Many lessons from microfinance in Indonesia have been successfully adapted to BancoSol. Of course, conditions in Bolivia

are different from those in Indonesia, and the process of developing instruments and services is not one of replication, but rather one that combines adaptation with innovation. As work at HIID on commercial institutional microfinance expands, it can be seen that some aspects of microfinance programs can be replicated almost unchanged, some can be adapted, and some cannot be transferred.

Lotteries as a feature of savings instruments provides a good example of easy replicability. Lotteries were begun in Bank Dagang Bali in 1971. The owners of BDB, who themselves grew up in poverty, have an extensive understanding of the psychology of lower-income people. They know that poor people tend to gamble since many see this as the only potential route out of poverty. BDB sought to satisfy this widespread interest in gambling, but to remove the risk for the participants while simultaneously encouraging them to save in the BDB. Therefore, every BDB saver receives free of charge one lottery number per month for each Rp 10,000 (about \$4.63 in 1994) of their minimum monthly balance. The lottery is held four times a year, and is enormously popular. Earlier the highest annual prize was a motorcycle, then it became a car, and finally a house. A number of smaller prizes are also given at each lottery drawing. The underlying psychology was right: the lotteries that began in BDB were adapted by BRI for their liquid accounts in 1984 and by BancoSol for their liquid and semi-liquid accounts in 1993. Transferred without basic changes, the lotteries are very popular with customers in all three banks.

At the next level of adaptability, financial instruments, services, and staff training methods seem to be adaptable to different environments. However, as might be expected, at another level, there are aspects of institutional microfinance that do not transfer well. Organizational structure, institutional management, supervision, and corporate culture are examples. However, there is now evidence that sustainable microfinance can flourish in very different institutional settings.<sup>28</sup>

Each country has special economic and political circumstances that must be considered when designing policies and strategies for commercial microfinance. One example is the currency in which the financial instruments are offered. An initial study of savings demand carried out in Bolivia by BancoSol, with HIID advice, found that few Bolivian microentrepreneurs are willing to save in local currency. A major reason is that memories of the 1985 hyperinflation are too recent. However, the Bolivian economy is partly dollarized, and microentrepreneurs are quite prepared to save in U.S. dollars. At BancoSol, therefore, the introduction of savings instruments (which have attracted largely dollar deposits) meant special attention to the bank's currency balance and partial dollarization of the loan portfolio. In contrast, BRI and BDB have not had similar problems since Indonesia has not had hyperinflation for three decades and the rupiah is used for nearly all financial transactions at the local level.

#### **The Kenya Rural Enterprise Programme (K-REP)**

K-REP aspires to be the first institution in Africa providing sustainable microfinance. Preliminary work with K-REP in Kenya represents a further step in the process of transmission of the lessons of sustainable microfinance throughout the developing world. K-REP, an NGO currently at a stage similar to that of PRODEM in the late 1980s, is a capital-constrained NGO with a good record of lending to lower-income clients at commercial interest rates. The Managing Director of K-REP visited BancoSol and became interested in the BancoSol example. As a result, K-REP is now completing a feasibility study on the creation of a commercial financial institution out of the parent NGO, in an adaptation of the PRODEM-BancoSol model.

Initial studies of demand for savings instruments and services among K-REP's clients, carried out in 1994 with HIID advice, indicated that a set of three instruments similar to those used at

BRI and BancoSol could be appropriate for local demand in Kenya. In Kenya, however, there are special circumstances not found in either Bolivia or Indonesia. K-REP has had to plan its development during a period of high inflation (about 47 percent in 1993). In addition, government regulations and bank supervision are not yet fully appropriate for financial institutions providing microfinance.

BancoSol and K-REP are representative of institutions that start as NGOs which provide donor-financed credit to lower-income people; which then learn that they can supply only a tiny fraction of the demand for microfinance; and which ultimately decide to become financial intermediaries. Because of their NGO origins, however, such institutions tend to have a strong social service perspective. While they generally know their customers well, they typically need technical assistance in order to practice financial intermediation profitably. The few commercial banks that are testing the potentials of commercial microfinance come to it from the opposite direction. Banks, of course, are knowledgeable about finance, but they need technical assistance in learning about local markets, about client demand, and about designing products and services appropriate for lower-income people.

#### **Bank Danamon (Indonesia)**

A basic hypothesis of the new microfinance paradigm is that when one or more institutions has demonstrated that microfinance can be profitable, the formal banking sector in that country will begin to enter that market. Ultimately, if microfinance demand is to be met in developing countries, it will be because the banking sector has learned the potential profitability of this market. HIID's work with Bank Danamon (BD), the second largest private bank in Indonesia, is of special significance in this regard. BD, which learned from BRI that microfinance can be profitable, is probably the first large private bank to decide to enter local financial markets systematically on a large scale.

HIID began work with BD in 1995; its role is to help BD to learn about local financial markets, to advise on the design and implementation of financial instruments appropriate for local demand, to advise on the structure that the BD local banking system will take, to help in staff training, etc. If BD becomes successful in microfinance, it can serve as a model for large private banks in other developing countries. Such banks are more likely to be willing to learn about microfinance from a large private bank, one of their own, than they are from a state bank or small private bank. In addition, financial institutions in a number of developing countries have begun to ask whether there are Indonesian banks that would enter into joint ventures to provide commercial microfinance in their countries. The first large private banks that provide commercial microfinance successfully in developing countries are likely to have significant opportunities for joint ventures.

#### **Policy Advising in Other Developing Countries**

HIID has also been active in microfinance policy discussions with governments and financial institutions in a number of other developing countries, and with donor agencies. Among the various countries in which policy-related discussions on microfinance with government officials, financial institutions, and donor agencies are currently being carried out, the Philippines, South Africa, and India are of particular interest.

In the Philippines, Tulay Sa Pag-Unlad (TSPI), an NGO, provides credit to microenterprises and now wants to adapt the PRODEM-BancoSol model to Philippine conditions and to create a bank. TSPI has visited BRI and Bank Dagang Bali, and through the Micro Financial Services Network (MFSN),<sup>29</sup> TSPI is in contact with PRODEM, BancoSol, and K-REP. TSPI may be the first in Asia to develop this model. It is likely, therefore, that there will soon be an example of an NGO-created bank in each of the major continents on which developing countries are located.

South Africa has a rare combination of high, unsupplied, demand for institutional commercial microfinance, and a very high level of technology.<sup>30</sup> The government has indicated substantial interest in the development of commercial microfinance, and several South African delegations have visited BRI. The Standard Bank of South Africa has indicated interested in expanding its services to the microfinance market in South Africa, if this can be done profitably. SBSA is studying the BRI example and has been conducting pilot projects in microfinance. It is also experimenting to see whether new technologies can be used in cost-effective ways in the microfinance market.

India is faced with the classic problem of high subsidies and large losses in its subsidized rural credit programs, but on a much larger scale than in most countries. In addition, India has the largest number of desperately poor people of any country; many of these would not be able to participate in commercial microfinance programs even if these were offered. However, if India were to transform its approach to rural banking into one based on commercial principles, the country's extensive branch network could be used for profitable financial intermediation, and the government could gain large savings from this approach. These could then be used in poverty alleviation programs for employment creation, training, and social services.

Representatives of the National Bank for Agriculture and Rural Development (NABARD) and other Indian institutions have visited BRI; visits by the State Bank of India and other Indian banks are planned. In the context of India's recent financial reforms, there is interest at various levels of the government in instituting reforms in rural banking. Discussions with the Ministry of Finance, the Reserve Bank of India (the central bank), the State Bank of India, and others are presently in process.

## **Sustainable Microfinance: Policy Implications**

There are important policy implications of the new microfinance paradigm, and HIID is actively involved in analyzing and advising on these. Lessons for governments, donor agencies, banks, and NGOs can be briefly summarized:

### **1. Governments**

For commercial microfinance to be successful, the primary responsibilities of governments are: (a) to control inflation; (b) to establish appropriate regulations that permit institutions to charge the interest rates and fees needed to cover all costs and to return profits; (c) to provide effective and appropriate supervision of institutions supplying microfinance; and (d) to educate the bureaucracy and the public about the new microfinance and its importance for the economy and for development. Some issues related to microfinance are politically sensitive, and governments should consider how best to address these issues in their countries. For example, a 1994 USAID-funded comparative study of 11 microfinance programs, a HIID Consulting Assistance for Economic Reform paper, concluded that only two variables are significant predictors of return on assets: the program's effective interest rates and average staff salary relative to the country's per capita GNP.<sup>31</sup> In the study, all the self-sufficient institutions that operate without subsidy charge annual effective rates on loans that are at or above the KUPEDES rate of 33 percent. Average staff salary as a multiple of GNP per capita ranges from 0.7 to 5.1. These numbers are somewhat counterintuitive and can be politically sensitive in many countries. Governments that understand the social and economic benefits to the country that derive from sustainable microfinance will be better equipped to guide the political processes required for its implementation.

## 2. Donors

Social services programs, such as health, nutrition, family planning, literacy, and training, are often combined - for both funding and implementation purposes - with credit and compulsory savings activities. This makes it impossible for the financial component of the program to become self-sufficient. Both social and financial services are needed for development, but in the new microfinance approach these are funded and implemented separately and differently. The policy relevance for donors is that the latter should be financed commercially. The former, where appropriate, should continue to be funded by donors through grants and concessional loans.

Ways in which donor agencies can help the emergence of self-sufficient commercial institutions to provide microfinance sustainably include the following:

- (1) Donors can help the emergence of commercial microfinance in a particular country through using grants and concessional loans to fund the start-up equity required by a few selected institutions that are qualified and committed to attaining full self-sufficiency. These are the institutions that will provide the example to the country's formal financial sector. Therefore, in addition to providing equity, grants and low-cost loans can be provided to such institutions for specific purposes such as start-up costs, staff training, technical assistance, and the development of appropriate management information systems.
- (2) Donors should not provide funds for on-lending at subsidized interest rates. Microcredit programs that provide subsidized loans to borrowers undercut those institutions that provide commercial microfinance, thus harming the effort to meet microfinance demand on a large scale. Donors should learn the reasons that this practice defeats their own aims, and should change their funding priorities. Donors also commonly provide

low-cost funds to microfinance programs that on-lend to borrowers at commercial rates. While this does no direct harm, it tends to discourage the institution from becoming a licensed financial intermediary and thereby helps to ensure that microfinance demand is not met.

- (3) Where necessary and possible, donors should use their influence with governments to convince the latter: (a) to introduce the regulations (or de-regulation) needed for commercial microfinance, and (b) to develop supervisory bodies that can provide suitable oversight for institutions offering commercial microfinance.
- (4) In addition, donors are ideally suited to provide education to the donor community, governments, policy advisors, and microfinance institutions about the potential for commercial microfinance in developing countries and about its effects on social and economic development.

### **3. Banks**

The banks that learn first that institutional microfinance can be profitable, and that microfinance represents one of the largest unsupplied markets in the world are likely to have a strong comparative advantage in the coming decades. From HIID's work in various countries, it appears that there are divisions within some banks in which the potentials of commercial microfinance are understood. However, these divisions are often unable to convince their directors and boards to agree that microfinance be investigated as a potential market for the bank. Foresighted bank presidents and boards should listen to such division chiefs and should pay serious attention to BRI's unit banking division - which provides most of BRI's profits! Banks that prove themselves profitable in the home microfinance market are likely to be sought after for joint ventures in other countries as well.

#### **4. Non-Government Organizations providing microcredit**

NGOs have made major contributions to the development of microfinance in various ways, especially by demonstrating clearly that lower-income people can be good borrowers. However, NGOs are dependent on donor funding and, as NGOs, they are unlikely to play a large role in the future of microfinance. Once the profitability of microfinance is more widely understood, the formal financial sector is likely to take the lead in meeting microfinance demand. For a number of reasons, most institutional microfinance should be implemented by licensed and supervised institutions, most importantly because the mobilization of public savings, required for institutional sustainability, needs to be supervised.

NGOs whose boards and managers perceive the larger trends will be able to make the choices that are appropriate for their institutions in the coming decades. Some may become licensed financial institutions in the PRODEM-BancoSol model. Others may choose to turn instead to activities such as employment generation and skill training, health, family planning, education, the environment, and human rights.

#### **HIID's Role in Sustainable Microfinance: Summary**

HIID has worked at the Bank Dagang Bali, probably the first bank to supply microfinance profitably and continuously; with BRI, the largest and most successful bank in the world providing sustainable microfinance; with Bank Danamon, the first large private bank to begin a phased program to enter local financial markets systematically and on a large scale; with BancoSol, the first bank providing sustainable microfinance in Latin America; and with K-REP, an NGO that aims at becoming the first sustainable microfinance institution in Africa. HIID is also currently engaged in policy discussions about sustainable microfinance with decision makers in India - the world's second largest country, and in other

developing countries in Asia, the Middle East, Latin America, and Africa.

In summary, HIID works with NGOs that want to create banks, with banks that want to enter the microfinance market, and with governments and donor agencies that want to learn about commercial microfinance. HIID is also advising BRI on its program for international visitors. In addition, HIID is analyzing and teaching - in universities, financial institutions, donor agencies, bank superintendencies, and NGOs - the principles and the results of the new microfinance paradigm.

Bank Dagang Bali has provided commercial microfinance since 1970, and its long-term customers have received BDB's financial services for over two decades. Many of BDB's clients have prospered over the years, moving from microenterprises to small and medium enterprises, and some to large businesses. One wealthy man, a BDB client since 1971, said 24 years later:

I grew up very poor and without education. I learned, though, that I could improve myself, and that the bank would help me. The president of Bank Dagang Bali is a great man. Why do I say that? Not because he is a bank president; there are many bank presidents. Because he taught us not to be afraid of banks. BDB taught us something important that we never knew. BDB taught us that the bank is not a king, the bank is a servant.

HIID continues to work, as it has for the last 15 years, to help to create, develop, and disseminate the idea that institutional commercial microfinance is crucial for social and economic development, and that it can be implemented widely by sustainable institutions throughout much of the developing world.

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## NOTES

1. This paper was presented at the HIID History conference in Bermuda on March, 30, 1995. The author has served as advisor on local banking to the Indonesian Ministry of Finance, the Bank Rakyat Indonesia, Bank Danamon (Indonesia), Bank Dagang Bali (Indonesia), the Center for Policy and Implementation Studies (Indonesia), BancoSol (Bolivia), the Kenya Rural Enterprise Programme (Kenya), the Bolivian and Indian USAID Missions, and others. The work discussed here has been supported by the Indonesian Ministry of Finance, USAID, the GEMINI Project (a USAID centrally funded project), the World Bank, the Ford Foundation, the Calmeadow Foundation, and others. The author is grateful to the institutions with which she has worked, to the institutions and foundations that have supported this work, and to the colleagues and friends in many countries with whom she has worked.

2. Lack of access to institutional finance by lower-income people in developed countries is also widespread, and also has major effects on both society and economy. However, discussion of microfinance in developed countries is outside the scope of this paper.

3. Although many people have worked on HIID's projects on microfinance, this paper covers only HIID projects coordinated by this author. For other HIID work on microfinance, see Patten (1995). The HIID projects covered in this paper are: (1) the Development Program Implementation Studies (DPIS) project on Indonesian rice intensification (1979-1883), funded by the Indonesian Ministry of Finance; (2) the HIID advisory project to the Center for Policy and Implementation Studies' project on local banking at the Bank Rakyat Indonesia (1983-1990), funded by the Indonesian Ministry of Finance; (3) HIID's project to write a paper providing an overview of the role of savings mobilization in sustainable microfinance (1993), funded by GEMINI, a centrally-funded USAID project; (4) HIID's project to work on the preparation of a course in microenterprise finance (1994), funded by the GEMINI Project; (5) HIID's Rural Finance Project in Bolivia (1992-1995), funded by the GEMINI project and USAID's Mission in Bolivia; (6) HIID's project with Bank Dagang Bali in Indonesia, funded by the GEMINI project, the Calmeadow Foundation of Toronto, and HIID (1994-95); and (7) HIID's project with Bank Danamon in Indonesia (1995), funded by Bank Danamon.

HIID consultants on the **DPIS Rice Intensification project (1979-1983)** were:

John R. Bowen, James J. Fox, Marguerite S. Robinson (Coordinator), Donald R. Snodgrass, Peter Timmer, and Donald P. Warwick. Consultants to the **HIID advisory project to the Center for Policy and Implementation Studies' project on local banking at the Bank Rakyat Indonesia (1983-1990)** were: Christopher P. A. Bennett, John R. Bowen, David Dapice, James J. Fox, James Kern, Richard Monteverde, Marguerite S. Robinson (Coordinator), Richard H. Patten, Donald R. Snodgrass, C. Peter Timmer, and Robert C. G. Varley. Many members of CPIS, some of whom were former members of DPIS, contributed to this project; those whose work was of most direct relevance to the issues considered here are Ismah Afwan, Hilman Akil, Kwan Hwie Liong, R.J. Moermanto, Ilyas Saad, L. Hudi Sartono, Bambang Soelaksono, and Sudarno Sumarto. Consultants to **HIID's project with Bank Danamon (1995-1998)** are: Christopher P.A. Bennett, Robert Peck Christen, and Marguerite S. Robinson (Coordinator). In the other projects discussed here, the HIID consultant was Robinson.

In addition, this paper draws from work carried out by the author: (1) with BancoSol in Bolivia, funded by BancoSol (1992-present); (2) with the Kenya Rural Enterprise Programme, funded by the Ford Foundation, K-REP, and HIID (1994-present); (3) with BRI on developing an instructional program for international visitors to BRI's local banking system (1994-1995), carried out under a HIID-BRI project funded by the World Bank (see Patten, 1995 for other activities of that project); (4) with USAID on teaching microfinance to USAID managers and to managers of AID-funded financial institutions (1995), funded by USAID; and (5) with USAID's Mission in India (1994-1995) on the development of commercial microfinance, funded by the GEMINI project and USAID.

4. The term donor is used as in Rosenberg (1994): " 'Donor' is used here as shorthand for any group or individual who invests money in microfinance efforts, and whose investment is motivated primarily by concerns of poverty reduction and/or economic development, rather than maximizing the investor's financial return" (p. 1).

5. The 'absurd gap' is a phrase used in this context by Michael Chu, Executive Director of ACCION International, at a USAID-sponsored conference on "Building Healthy Financial Institutions for the Poor" in Washington, D.C., September 27, 1994.
6. Other financial services may be provided as well, such as payments channeled through the institution for electricity and telephone bills, and for salaries and pensions.
7. See Christen, Rhyne, and Vogel (1994); Rosenberg (1994); Robinson (forthcoming 1995a).
8. Why microfinance matters for development has been well discussed in Christen, Rhyne, and Vogel (1994).
9. For the development of BRI's unit banking system, see Development Program Implementation Studies Report on Rice Intensification (1983); Robinson and Snodgrass (1987); Patten and Snodgrass (1987); Robinson and Sumarto (1988); Sugianto (1989, 1990a, 1990 b); Robinson (1989, 1992, 1994a, 1994b, forthcoming 1995a, forthcoming 1995b); Bank Rakyat Indonesia (1990, 1994); Boomgard and Angell (1990); Patten and Rosengard (1991); Snodgrass and Patten (1991); Patten (1995); Schmit (1991); Sugianto, Purnomo, and Robinson (1993); Gonzalez-Vega (1992); Boomgard and Angell (1994); Hook (forthcoming 1995). For comparative studies including BRI's unit banking system, see Yaron (1992a, 1992b); Otero and Rhyne (1994); Rhyne and Rotblatt (1994); and Christen, Rhyne, and Vogel (1994).
10. Those primarily responsible for the paradigm shift in microfinance in Indonesia are: Professor Dr. Ali Wardhana, Bpk. Kamardy Arief, Bpk. Sugianto, Bpk. I Gusti Made Oka, and Ibu Sri Adnyani Oka.
11. Informal commercial lenders in Indonesia (and in many developing countries) typically charge lower-income borrowers a flat rate on the original balance of 15 to over 40 percent per month. Interest rates charged by moneylenders in developing countries, and the reasons for these rates, are discussed in Robinson (1994a). In comparison, BRI's nationwide local banking system provides loans profitably at the local level for 1.5 percent per month flat rate on the original balance.
12. HIID work since 1979 in developing and analyzing the concepts and practices of microfinance builds on earlier work by many authors, especially Dale Adams, Claudio Gonzalez-Vega, Robert Vogel, and J. D. Von Pischke. It is also influenced by recent ideas and publications by those authors and others, including Robert Christen, Michael Chu, Maria Otero, Elizabeth Rhyne, and Richard Rosenberg. See Robinson (1992, 1994a, and 1995b) for a microfinance bibliography.
13. See Robinson (1992) for references.
14. See Robinson (1994b).
15. The term unit bank has a special meaning in Indonesia. BRI's sub-district-level banks were originally called village units (unit desa); when urban units (unit kota) were added in the late 1980s, the term unit bank came to be used for all BRI's local banks, both rural and urban. The unit banking system, as it is known, operates at the sub-district (kecamatan) level, serving the villages of each rural sub-district, as well as selected urban neighborhoods; the unit banks are under the supervision of the BRI branch, regional, and head offices.
16. Improved National BIMAS (an acronym for Bimbingan Massal, or Mass Guidance) was begun during the 1970-1971 wet season.
17. Indonesia achieved self-sufficiency in rice in 1985.
18. For discussion of the Center for Policy and Implementation Studies (CPIS) see Snodgrass and its precursor, DPIS, see Snodgrass (forthcoming, 1995).

19. HIID's 1983 Rice Report also called attention to the alarming decrease in the Indonesian rice gene pool, and recommended immediate further study. The recommendation was accepted by the Indonesian Ministry of Finance. The ensuing study carried out by HIID's advisory project on rice seeds and pesticide use led to identification of the use of resurgence-causing pesticides as a major cause of pest attacks in Indonesia and to the development of a national integrated pest management program.
20. KUPEDES is an acronym for Kredit Umum Pedesaan, or general rural credit.
21. This phase of the work with BRI was carried out in part by HIID advisors based at the Center for Policy and Implementation Studies (CPIS) in Jakarta, a foundation funded by the Ministry of Finance; and in part by HIID advisors working at BRI under USAID and World Bank funding. This paper covers the HIID advisory project for BRI based at CPIS; see Patten (1995) for discussion of the HIID project at BRI.
22. SIMPEDES is an acronym for Simpanan Pedesaan or rural savings; SIMASKOT is an acronym for Simapanan Kota or urban savings. Both permit an unlimited number of withdrawals.
23. The average 1994 exchange rate was approximately \$1 = Rp 2160.
24. BRI's unit banking system uses two measures of long term arrears. The long term loss ratio (2.6 percent as of December 31, 1994) is the ratio of the cumulative amount due but unpaid, to the total amount due. Portfolio status (4.5 percent as of the same date) is the ratio of present credit outstanding to present arrears. Since, on any given date, some of the credit outstanding would not yet have come due, the long-term loss ratio is considered a more accurate measure of arrears than portfolio status.
25. BRI (1990); see also O'Rourke (1993).
26. Robinson (forthcoming, 1995c).
27. Sugianto, Satriyo Purnomo, and Marguerite S. Robinson, Pembiayaan Pertanian Pedesaan [Rural Finance]. Jakarta: Indonesian Banking Institute, 1993. HIID authors who have written on BRI's unit banking system include: Report on Rice Intensification (DPIS Report, 1983); Robinson and Snodgrass (1987); Patten and Snodgrass (1987); Robinson (1989, 1992, 1994a, 1994b, 1994c, forthcoming 1995a, forthcoming 1995b); Patten and Rosengard (1991); Snodgrass and Patten (1991); Patten (1995); Hook (forthcoming 1995).
28. In their study of 11 of the best microfinance programs on three continents, Christen, Rhyne, and Vogel (1994) found that sustainable microfinance occurs in widely differing institutional structures and country environments.
29. MFSN, an international organization of financial institutions providing commercial microfinance, was founded at a meeting held at BancoSol in Bolivia in 1993. In addition to microfinance institutions, founding members of MFSN include the Calmeadow Foundation of Toronto and ACCION International. The MFSN's second annual meeting was hosted by the Standard Bank of South Africa in 1994, and the third annual meeting will be hosted by TSPI in the Philippines in 1995. The organization serves as a forum for sharing experiences among member institutions, and it helps members to gain information about the multiple components of successful commercial microfinance.
30. Israel, where there is beginning to be interest in the Indonesian microfinance model, may be similar to South Africa in this respect.
31. Christen, Rhyne, and Vogel (1994), p. 33. Programs studied include BRI's unit banking system; the BKDs, supervised by BRI; BancoSol; and K-REP.