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An Evaluation
of the
Institutional
Aspects of the
Financial
Institutions
Development
Project, Phase I
in Indonesia

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GEMINI

GROWTH and EQUITY through MICROENTERPRISE INVESTMENTS and INSTITUTIONS
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**An Evaluation of the Institutional Aspects
of the Financial Institutions Development Project,
Phase I
in Indonesia**

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GLOSSARY OF ACRONYMS

BANK PASAR	Market bank, which may be privately owned or owned by the local government.
BAPPEDA	<u>Badan Perencana Pembangunan Daerah</u> . Regional Development and Planning Agency.
BI	<u>Bank Indonesia</u> . The Central Bank of Indonesia.
BKD	<u>Bank Kredit Desa</u> . A rural credit institution in West Java, not part of FID.
BKK	<u>Badan Kredit Kecamatan</u> : District credit institution with a system of village posts; part of the original FID project.
BKPD	<u>Bank Karya Produksi Desa</u> . Rural Bank in West Java owned by local government. The only FID-I institution authorized to accept voluntary deposits prior to 1988.
BPD	<u>Bank Pembangunan Daerah</u> - Provincial Development Bank.
BPR	<u>Bank Perkreditan Rakyat</u> . A community credit bank. Large numbers of these local unit banks have been established in the past few years as a result of the liberalization of financial markets. Despite the name, the new BPRs tend to be very aggressive suppliers of deposit facilities.
BRI	<u>Bank Rakyat Indonesia</u> . Large state-owned commercial bank, one of the largest financial institutions in the world in terms of its branch network and number of people served.
BRI UNIT DESA	A separate unit and profit center within BRI operating a large network of sub-branches, many in rural areas. The name <u>Unit Desa</u> (Village Unit) has recently been changed to simply <u>Unit</u> , reflecting the fact that many sub-branches are located in more urban areas.
CDSS	Country Development Strategy Statement
DMI	Deposit Mobilizing Institution.
EOPS	End of Project Status
FID-I	Phase One of USAID/Jakarta's Financial Institutions Development Project.

FID-II	Phase Two of the Financial Institutions Development Project, targeting BRI Unit Desa.
GOI	Government of Indonesia.
KUK	Small-Scale Business Credits as defined by PAKJAN and BI Board of Directors Circular No.22/4/UKK dated 1/29/90.
KURK	<u>Kredit Usaha Rakyat Kecil</u> . Rural credit institution in East Java owned by the provincial government.
LKURK	<u>Lembaga Kredit Usaha Rakyat Kecil</u> . Legal entity created in 1987 to hold the KURK system of East Java.
LPD	<u>Lembaga Perkreditan Desa</u>
LPK	<u>Lembaga Perkreditan Kecil</u> . Rural credit institution in West Java.
LPN	<u>Lembaga Perkreditan Negara</u>
PAKJAN	Decree No. 22/81/KEP/DIR of the Board of Directors of Bank Indonesia dated 1/29/90 directing commercial banks to place 20 percent of their loan portfolio with small-scale businesses.
RFI	Rural Financial Institution. Generic name for rural credit institutions.
SCI	Specialized Credit Institution.
TAMADES	<u>Tabungan Masyarakat Desa</u> . A savings scheme introduced by FID-I into the BKK of Central Java involving mini certificates of deposit.
USAID/Jakarta	The U.S. Agency for International Development/Jakarta.

EXECUTIVE SUMMARY

Working through the Ministry of Home Affairs and Provincial Development Banks (BPDs), the Financial Institutions Development Project, Phase I (FID-I) is attempting to expand the flow of financial services to rural poor through the development and expansion of an existing network of village-based, nonbank financial institutions in selected provinces. Project inputs include training support, technical assistance, commodities, and a capitalization fund. Targeted end of project results include self-sustaining training capability on the part of the participating BPDs; improved auditing, inspection, and supervision of the village-based units; establishment of an efficient system of domestic deposit mobilization; strengthened operational and accounting procedures for each regional system; and improved management information systems.

The team found that the project was a well-designed and competently implemented part of U.S. Agency for International Development/Jakarta's long-range strategy to develop rural financial institutions and stimulate rural development. The project is consistent with and supportive of USAID's Country Development Strategy Statement and the favorable policy environment in which it continues to unfold. FID-I contains many useful lessons that may be of benefit to USAID in designing future interventions, both in Indonesia and in other developing countries. Because of the great variation observable in the different project areas, FID-I provides an excellent example of the importance of deposit mobilization in the provision of financial services to rural smallholders. FID-I and its companion project with the Bank Rakyat Indonesia (BRI) Unit Desa system offer what may be the clearest evidence available anywhere in the developing world of the importance of a credible deposit facility as an essential part of a long-range strategy to provide rural smallholders and microentrepreneurs with credit.

The project has been successful in meeting what, in other contexts, would have been considered unrealistically optimistic institutional growth targets. The project was also very successful in reaching increased numbers of rural poor with improved financial services. Although the optimistic target for number of borrowers served was not achieved, the paper examines evidence that this failure may be due to the project's success in reaching an increased number of savers. Project design failed to anticipate the extent to which small borrowers would substitute the financial service of a good deposit facility for the financial service of credit, once the deposit service became available. If project design may be faulted on any one issue, it must be its failure to appreciate the demand for deposit facilities on the part of the FID-I clients and the potential for institutional development that resides in meeting that demand.

The most impressive achievement of the FID-I institutions during the life of the project concerned the sharply increased portion of the credit portfolio funded by domestically mobilized resources. The project paper set a goal of 17.3 percent for this achievement. According to the most recent statistics, 323.1 percent of this target has been achieved, with fully 55.9 percent of the credit portfolio of the original four systems funded out of locally mobilized resources. As of the end of 1989, the Bank Karya Produksi Desa institutions of West Java was able to finance 100 percent of its rapidly expanding credit portfolio out of locally mobilized resources. The Lembaga Perkreditan Desa of Bali — not among the original four FID-I systems — should achieve this status by the end of 1991.

The report stresses the need for a basic restructuring of the relationship between the BPD and the village units as a means of ensuring a smooth flow of services from the center to the deposit-accepting units at the periphery of the financial system. The BRI Unit Desa system, which has solved the problem of how to ensure a smooth flow of services from the center to the periphery, is held up as a model for

the FID-I systems. The essential feature of the BRI Unit Desa model that is missing in the FID-I systems is the close relationship between the village units and the bank as a whole. There is an uninterrupted flow of services from the bank to the Unit Desa — technical assistance, training, monitoring, and supervision as well as an array of financial services backed up by an incalculable amount of good will in the form of the image of BRI as an unsinkable ship of state. These services flow to the village units because there is a return flow of both loanable funds and profits to the BRI from the Unit Desa.

The development potential that resides in the FID-I systems is great. An enormous amount of human, real, and financial capital has been put in place over the life of the project, much coming from nonproject sources. This capital provides a firm basis for deposit-led growth, provided the organizational and structural problems tied to ownership and control are overcome.

The study calls attention to a major stumbling block that lies in the path of established specialized credit institutions in making the transition to deposit-led growth: as the reliability and convenience of the deposit facility becomes generally recognized by the rural population, there will be relentless pressure for average loan size to increase as many former credit customers substitute the deposit facility for credit as a source of liquidity. Institutions that once successfully managed large numbers of small loans are not necessarily prepared to manage the smaller number of larger loans that is the distinguishing characteristic of successful deposit-led financial intermediation, particularly since the larger loans can be made only at sharply reduced loan rates of interest. The reduced average yield on a portfolio of larger loans means that institutions experiencing deposit-led growth must give considerably more attention to loan quality than is currently observable among the specialized credit institutions served by the project.

The inescapable need on the part of deposit-mobilizing institutions to be concerned with loan quality is part of the adjustment to market demand that tends to make village outlets for financial services cash-surplus units. The evaluation reveals that a tendency for successful deposit-based rural institutions to be net suppliers of credit to the financial system constitutes prima facie evidence that the project and institutions respond to the demand for services on the part of the people they serve.

The evaluation team recommends that the project be extended, if possible until March 31, 1994, which would coincide with the national and provincial governmental planning years, and that USAID/Jakarta consider a follow-on project to build on the achievements to date. Major issues for the immediate future include extending what has been learned about deposit mobilization in Bali and West Sumatra to the other FID provinces and establishing effective systems of external auditing, supervision, and control of the many hundreds of rural financial institutions in the FID provinces. The evaluation calls attention to the relevance of the BRI Unit Desa model as an effective means of ensuring a sustainable flow of services from the regional development banks to the rural financial institutions targeted for development by FID-I.

CHAPTER ONE

INTRODUCTION

AN OVERVIEW OF FID-I

The Financial Institutions Development Project (FID-I) began in 1984 as a seven-year, \$27.8-million project to strengthen four existing rural-based credit systems in three provinces — Central Java, West Java, and West Sumatra. It was amended twice to include four additional provinces. East Java was added in 1987 by Amendment 2 to the Project Paper, and Bali, South Kalimantan, and West Nusa Tenggara were added in 1989 by Project Implementation Letter (PIL) No. 36. The project provides training, technical assistance, commodity support, and a modest revolving loan fund made available to individual units for the purpose of expanding loan portfolios.

Project Rationale

The project represents part of U.S. Agency for International Development/Jakarta's effort to respond to the challenge and the opportunity presented by the liberalization of financial markets following a series of policy changes begun in June 1983. The Project Paper identified the lack of financial intermediation between rural savers and borrowers as an important constraint on rural development. An earlier World Bank study showed low levels of financial savings held by Indonesian households compared with other developing Asian nations. The low levels of financial savings held by rural households despite a strong propensity to save out of current income suggested strong growth potential for institutions offering attractive deposit facilities.

Implementing Agencies

The project works through two ministries, the Ministry of Finance and the Ministry of Home Affairs, as well as the provincial development banks (Bank Pembangunan Daerah — BPD) in the respective project areas. While the Ministry of Home Affairs was targeted for considerable assistance in the project, the principal institutional beneficiaries of the technical assistance, training, and commodity support were the BPDs, which were seen as key institutions in reaching the rural credit institutions and, through them, the rural poor.

In Indonesia, the provincial development banks are not pure development banks in that they have considerable responsibility as cashiers for the provincial governments. Whereas the bulk of the liabilities of the typical development bank consists in long-term obligations to the central government or to foreign donor organizations, a large portion of the liabilities of the BPDs involved in FID-I is short-term obligations to regional governmental agencies.

Purpose, Goals and Objectives

Project goals identified in the Project Logical Framework were to encourage enterprise development, increase productivity, and generate employment opportunities in rural areas.

The purpose of the FID-I intervention has been stated succinctly as follows:

- To support the development of existing local rural credit systems that provide *financial intermediation* for village residents at reasonable cost (emphasis added);
- To produce loan portfolios of employment-generating activities, primarily off-farm; and
- To promote savings mobilization programs.

The objectives of the original Financial Institutions Development Project outlined in the Project Paper and restated in the project log frame were defined as follows:

- A self-sustaining BPD training capability;
- Improved auditing, inspection, and supervision;
- Establishment of an efficient system of savings mobilization;
- Strengthened operational and accounting procedures; and
- Improved Management Information Systems (MIS).

Strategy

The FID project was developed on the basis of several important premises: market rates of interest must prevail if the institutions are to grow and become self-sufficient, credit programs must be market oriented and general purpose, savings mobilization is a necessary companion to credit programs in the provision of financial services in rural areas, and technical assistance and training are at least as important as capitalization funds for strengthening a rural finance system.

Most importantly, perhaps, the original FID project was understood by its designers to be part of a long-range plan for strengthening rural financial institutions. According to the Project Paper, FID-I was understood to be "a first step toward an improved rural banking system and [will] provide an expanded model for the GOI [Government of Indonesia] and ultimately for the private sector."

USAID long-term objectives in FID-I were to help create a regulatory and policy environment conducive to the development of a comprehensive open-market rural banking and finance system, and to demonstrate the feasibility and benefits of such a system by supporting selected institutions or programs within each segment of the formal rural finance market.

As part of its longer-term support of rural financial markets, USAID foresaw the need to support financial and technical assistance coordination among the regional development banks, "at least with

respect to their BKK- [Badan Kredit Kecamatan or district credit institution]-type programs," and "for some form of national consolidation among the BPDs to improve their financial base." (Amendment 1, pp. 8-9.)

Policy Environment

FID-I was designed to take advantage of very promising policy changes initiated in 1983 involving a major liberalization of the financial system, including freeing most deposit and lending rates, elimination of credit ceilings, and a substantial reduction in the number of programs qualifying for central bank liquidity credits. During the life of the project, additional policy directives have tended to strengthen the market-oriented approach to economic development, the only significant exception being the recent PAKJAN (Decree No. 22/81/KEP/DIR) requiring major banks to place 20 percent of the loans with "small" enterprises.

Although the ultimate effect of this apparently politically motivated departure from the strong free-market thrust of the policy initiatives of the past seven years is unclear, because of some ambiguity in what may be considered a "small" enterprise,¹ PAKJAN must be considered a negative development that may have a strong impact on some of the FID-I institutions, notably the BKKs of Central Java and the LPKs (rural credit institutions — Lembaga Perkreditan Kecils) of West Java, as they attempt to make the transition from narrowly focused institutions specializing in the distribution of credit to the more demanding role of financial intermediaries involved in the mobilization of voluntary deposits.

PURPOSE AND METHODOLOGY OF EVALUATION

According to the scope of work for this evaluation (reproduced as Appendix A), the basic task of the evaluation team was to measure and assess the progress toward attaining the End of Project Status (EOPS) benchmarks, as outlined in the Project Paper and subsequent amendments and grant and loan agreements. In addition to addressing the purpose and output objectives identified in the Project Paper log frame, the evaluators were asked to discuss the effectiveness of T/A contracts (DAI and subcontractors) and project management (BANGDA and GOI project manager) in achieving project goals. Finally, the evaluators were asked to make recommendations concerning possible future USAID Mission involvement in the sector.

The evaluation team used three sources of information: existing reports and documents available in Jakarta, meetings with regional and district officials, and analysis of loan ledgers at selected subdistrict

¹Circular No. 22/4/UKK of the Board of Directors of Bank Indonesia, dated January 29, 1990, point II.1.1., states that "Credits given by a commercial bank to a BPR [community credit bank or Bank Perkreditan Rakyat] up to the amount of Rp200 million are calculated as KUK [small-scale business credits] from the creditor commercial bank" (emphasis added). No restrictions appear to be placed on what the BPR may do with these KUK funds, or even on how large (or how small) the BPR receiving these credits need be. It seems that commercial bank credits to a BPR that fail to satisfy BI's (Bank Indonesia's) definition of a small enterprise may still be counted as KUK or that credits to a BPR that may or may not meet the criteria may be counted, even if the BPR on-lends the funds to enterprises that do not meet the criteria.

and village institutions. In addition, a local consultant was hired to address structural, organizational, and management issues at national, regional, and district governmental agencies. The main findings of this consultant, Jacob Sardi of P.T. Hasfarm, which are available in a rough English translation, have been incorporated into the findings and recommendations of this report.

The evaluation team was able to conduct a limited amount of basic research into the demand for financial services of the population actually making use of the FID-I institutions. A total of approximately 200 person-hours were spent conducting this research in 13 village and subdistrict units. The data collection efforts of the evaluation team were multiplied by assistance generously offered by two to six BPD and RFI (rural financial institution) employees in each location.

The principal focus of the data collection effort at each RFI was the compilation of information from a random sample of individual loan ledger cards. Approximately 50 individual loan ledgers were examined at each of the 13 RFIs visited, and listed in Table 1-1, for a total sample size of 659. In addition, a sample of 351 randomly selected deposit ledgers were examined at each of the institutions offering a voluntary deposit facility, making a total of 1,010 individual ledgers sampled.

While the FID-I clients examined in this effort might not be as representative as could be desired, because the institutions visited were not selected at random, it is important to understand that the data collected on these individuals is reliable and comprehensive. In addition to containing such easily verifiable data as sex, age, occupation, distance to home, whether or not the saver was known to the manager, and whether the saver had a loan, the ledger cards provide an accurate record of actual transactions. For each borrower it was possible to determine the exact date, amount, and term of the loan; the number of payments actually made; the amount of interest actually collected; the outstanding balance; and the total amount of savings held by the borrower at the time of the visit to the RFI. From this data it was possible to derive other hard statistics, such as the exact term of the loan (in days — the difference between the due date and the date of the loan), the age of the loan (also in days — the difference between the date of the visit and the date of the loan), the amount by which the age exceeded the term, and so forth.

Computer-assisted analysis of this data permitted not only inferences about the demand for financial services on the part of FID-I clients, but also the success or failure of the different FID-I institutions in meeting this demand.

It should be understood, however, that it is not necessary for the institutions visited to be representative of the FID-I institutions for the information provided by this approach to be of great value. In fact, more useful information about the demand for financial services may be obtained from nonrepresentative institutions that provide an exceptional level and quality of financial service. Inferences about the demand for financial services are difficult to make when supply constraints and considerations predominate.

Table 1-1
Data Collection Schedule

Date Visit (1990)	RFI	Province	Total Assets (Rp.1,000)	Type¹
July 31	LPN Bunga Tanjung	West Sumatra	66,676	SCI
July 31	LPN Taeh Baruh	West Sumatra	71,202	SCI
August 1	LPN Labuh Gunung	West Sumatra	59,619	SCI
August 3	LPD Balbahuh	Bali	230,481	DMI
August 4	LPD Gelgel	Bali	58,824	DMI
August 6	LKURK Lakarsantri	East Java	57,386	SCI
August 7	LKURK Kamigoro	East Java	31,668	SCI ²
August 8	LKURK Socha	East Java	44,428	SCI
August 9	BKK Kerang Tengah	Central Java	192,919	SCI
August 10	BKK Wirosari	Central Java	310,848	SCI
August 14 & October 12	BKPD Dayeukolot	West Java	1,333,102	DMI
August 15	LPK Paseh	West Java	948,172	SCI
October 13	LPK Cikalongkulon	West Java	150,493	DMI

¹For the purposes of subsequent analysis, the FID-I institutions visited were classified into two groups, depending on whether or not they were aggressive mobilizers of voluntary savings deposits. Aggressive deposit mobilizers are referred to here as Deposit Mobilizing Institutions, or DMIs. The other FID-I institutions are referred to as Specialized Credit Institutions, or SCIs.

²Classified as an SCI because the Pilot Savings Mobilization Project had only just begun at the time of the consultant's visit.

The list presented in Table 1-1 shows that two RFIs in Bali were visited, despite the fact that the province has only been recently included in the project. The inclusion of the LPD (Lembaga Perkreditan Desa) of Bali was felt essential since they provide the only examples among the FID-I provinces of village-based institutions actively engaged in voluntary deposit mobilization. In addition, Bali was needed to anticipate and counter the argument that the successful deposit mobilizers of West Sumatra based at the subdistrict level are more urban institutions than the BKK and the LKURK (Lembaga Kredit Usaha Rakyat Kecil — a legal entity), and that their experiences thus are not relevant for the more rural specialized credit institutions.

CHAPTER TWO

FID-I INSTITUTIONS AT THE START OF PROJECT

The information provided by the Project Paper on the four systems of rural credit institutions to be included in the project provides not only a snapshot of these institutions but also, in the time-series data, a basis for determining the direction in which these institutions were developing at the time of the intervention. It is important to understand something of the momentum with which these institutions were moving at the start of the project in order to correctly gauge the influence the project has had on their development. This chapter presents initial descriptions of the principal FID-I institutions including the newest system added to the project several years later. These institutions include:

- BKK of Central Java;
- LPN of West Sumatra;
- BKPD (Bank Karya Produksi Desa) and LPK of West Java; and
- LKURK of East Java

THE BKK SYSTEM OF CENTRAL JAVA

The BKK system of Central Java represents one of the most successful efforts anywhere in the developing world to build a financial institution, extending its reach to thousands of villages and hundreds of thousands of rural borrowers in Central Java. It is the largest system that is part of FID-I.

The principal features of the BKK system are the involvement of subdistrict and village officials in the selection and approval of borrowers (character-based lending); the use of rates of interest sufficient to cover all costs and provide some return to capital; and the establishment of a network of village posts, which brought financial services close to the people on market days, lowering transaction costs substantially. The involvement of local officials in the selection of borrowers was designed to approximate the village money lender's closeness to his clients, while the use of realistic rates of interest was considered a necessary adjustment to the relatively high-cost environment in which the money lender traditionally operated. Establishment of village posts also mimicked the service provided by itinerant money lenders, and reduced the borrowers overall costs to such an extent that the higher interest costs were justified and acceptable.

The picture of the BKK system that emerges from an analysis of the balance sheet and income and expense data is of a credit system relatively independent of the agencies that created it, and beginning to stagnate in the self-limiting role of village money lender.

The rates of interest theoretically available to the BKK at start of project are quite high, ranging from a compounded annual rate of 342.3 percent for daily loans to 29.8 percent for seasonal loans (see Appendix C). These rates theoretically available to the BKK can be compared with the amount of interest

actually collected as a percentage of loans outstanding at the start of project, shown in the final column of Table 2-1. More than half of the 1,358,159,011 Rupiahs (Rp.) received in interest payments were reported to be from the BKK portfolio of daily and weekly loans (*Harrian* and *Mingguan*), which provide the highest returns. Yet total loan receipts as a percentage of loans outstanding were 22.4 percent, considerably less than the 29.8 percent theoretically available on the least expensive BKK seasonal (*Musiman*) loans. This suggests a rather relaxed attitude toward loan collection within the system as a whole. Items of special interest in the following statement of income and expenses at the start of project are highlighted for ease of reference.

Table 2-1
Income and Expenses for the BKK System
(For the year 1983, as at September 30)

INCOME	Rupiah	(%)	(%) Loans
Interest:	1,358,159,011	92.3	<u>22.4</u>
Daily/Weekly Loans	724,269,911	<u>49.2</u>	
Monthly/Seasonal Loans	597,544,894	40.6	
Agricultural Loans	36,344,206	2.5	
Other Cash Receipts	176,686	0.0	
Other Income	112,819,361	7.7	1.9
Total Income:	1,471,155,058	100.0	24.2
EXPENSES:			
Interest to BPD	67,822,319	<u>4.6</u>	1.1
Salaries	213,699,147	14.5	3.5
Audit/Supervision	44,746,101	3.0	0.7
Operational Expenses	63,240,784	4.3	1.0
Other Expenses	106,231,356	7.2	1.7
Depreciation	1,088,693	0.0	0.0
Total Expenses:	496,828,400	33.8	8.2
Net Income:	974,326,658	66.2	<u>16.0</u>

Source: Annex D, page 4, *Project Paper*

Of particular interest in the above analysis of BKK income and expenses at start of project is the small percentage of total expenses represented by interest costs — 4.6 percent —, all of which were

incurred on loans from the BPD. The insignificance of interest costs to the BKK at the end of 1983 is an objective measure of the limited extent to which the system was engaged in financial intermediation at start of project. Financial intermediaries incur considerable financial costs on the funds they administer for savers. Money lenders, it might be pointed out, who, for the most part, lend only their own capital, do not incur significant financial costs.

The direction in which the BKK institutions were developing as the project was getting underway may be understood by analyzing the changing structure of their assets and liabilities in the years prior to the intervention. Table 2-2 presents consolidated balance sheets for the system for three years. The changing structure is observable by noting what happens to the different items when expressed as a percentage of total assets.

Table 2-2
The Changing Structure of BKK Assets and Liabilities
Comparative Balance Sheets for Three Different Years
(In Rp.1,000,000 and percent of Total)

	1975	(%)	1978	(%)	1983 ¹	(%)
Assets:						
Cash	33.3	3.4	65.9	4.0	199.5	3.0
Loans Outstanding	894.4	92.8	1,463.6	89.7	6,071.9	90.2
Deposited with BPD	6.1	0.6	16.2	1.0	173.2	2.6
Material & Equip.	22.6	2.3	78.0	4.8	222.5	3.5
Other	7.3	0.8	7.9	0.5	53.5	0.8
TOTAL	963.7	99.9	1,631.6	100.0	6,730.6	100.1
Liabilities:						
Provin. Government	349.8	<u>36.3</u>	311.0	19.1	1,250.1	<u>18.6</u>
Kas Desa	18.1	1.9	24.9	1.5	21.0	0.3
Dinas Deposits	22.8	2.4	11.6	0.7	71.0	1.1
Member Savings	247.3	<u>25.7</u>	359.7	22.0	1,188.1	<u>17.7</u>
Retained Earnings	199.3	<u>20.7</u>	699.4	41.0	3,225.3	<u>47.9</u>
Profits Pre. Year	126.4	<u>13.1</u>	254.9	15.6	974.3	<u>14.5</u>
TOTAL	963.7	100.1	1,631.6	99.9	6,730.6	100.1

¹As of June 10, 1983

Source: Annex D, page 7, *Project Paper*

In the nine years prior to the intervention, while the structure of assets remained constant, all major categories of liabilities declined as a percentage of total liabilities except profits and retained earnings. While total assets increased almost sevenfold in this period, from Rp.963.7 million to Rp.6,730.6 million, retained earnings grew at a substantially faster rate, increasing more than sixteenfold, from Rp.199.3 million to Rp.3,225.3 million. Retained earnings plus profits increased from 33.8 percent of total assets in 1975 to 62.4 percent of total assets prior to project start-up.

The strength of profits and retained earnings within the BKK system in the decade prior to the intervention is less a reflection of their efficiency at providing service to their rural clientele than an indication of their favorable market position as the only supplier of liquidity to most of their potential customers, which allowed them to earn a profit despite apparently lax loan collection.

Although the BKK institutions never really intermediated between local savers and local borrowers — the savers who provided loanable funds to the BKK system were invariably the same individuals as the borrowers — there was a certain degree of financial intermediation between outside savers and local borrowers in the early years as the units were capitalized with government funds and handled monies for various government agencies. By the start of project, however, even this type of financial intermediation had dwindled to half of its former significance as funds from the "Provincial Government, Kas Desa and Dinas Deposits" declined from 40.6 percent of total assets to 20.0 percent.

The declining importance of outside funds in the nine years prior to FID-I is reflected in the insignificance of interest payments within total expenses. To the extent that the BKK institutions were engaged in local financial intermediation, it was not between savers and borrowers but rather — the income figures suggest — between borrowers and borrowers, that is, between those individuals who pay their loans as per the loan agreements and those individuals who do not.

THE LPN OF WEST SUMATRA

The LPN of West Sumatra, which has been in existence since the early part of the century, represent an alternative approach to the problem of beating the money lender. These clan-based administrative organizations, which serve up to approximately eight villages each, differ from the BKK of Central Java in fundamental ways. Like credit unions of the original 19th century model, the LPN organizations are closed, member-owned institutions that pool savings and make loans within the closed membership.

The LPN enjoy many of the other strengths that attend the credit union model, as well as most of its weaknesses. Members make deposits that they gain access to by taking out a loan. As in some credit unions, costs are kept low by the use of volunteers. Members do not object to paying interest for the use of their own money because of the leverage they may enjoy and because much of the interest income earned by the LPN is returned to them at the end of each year in the form of dividend payments. The closed membership of these institutions also contributes greatly to their ability to collect loans.

On the negative side, these organizations are of interest chiefly to individuals who are seeking to become net debtors. Individuals wishing to be savers are not interested in entrusting their money to such organizations, because they may not withdraw their deposits without withdrawing from the organization altogether. The LPNs do not manage voluntary savings deposits in the sense intended by

the project. Although there may be occasional local variations, the LPN model provides no deposit facility separate from the credit facility. Inasmuch as these institutions are chiefly made up of individuals wishing to be borrowers, they enjoy only limited significance as financial intermediaries between individuals wishing to be net savers and those wishing to be net borrowers.

Table 2-3 presents consolidated balance sheets for the LPN system for 1979 and 1983, permitting an analysis of the changing structure of their assets and liabilities at the start of project.

Table 2-3
The Structure of LPN Assets and Liabilities

	1979	(%)	1983	(%)	% Change
ASSETS:					
Cash	34,736	8.8	94,508	8.2	172.0
Inventory	1,610	0.4	20,887	1.8	
Bank Deposits	32	0.0	5,469	0.5	
Loans Outstanding	339,017	85.5	1,001,216	86.9	195.3
Other	21,167	5.3	30,590	2.7	
LIABILITIES:					
Provincial Loans	82,324	20.8	124,312	10.8	51.0
Bank Loans	0	0.0	40,741	3.5	
Voluntary Savings	3,345	0.8	12,773	1.1	281.9
Forced Savings	156,399	39.4	539,315	46.8	244.8
Reserve	41,092	10.4	223,791	19.4	444.6
Other	19,755	5.0	55,928	4.9	
Profit	94,665	23.9	155,810	13.5	
Total:	396,582	100.0	1,152,670	100.0	190.7

Source: Annex D, page 10, *Project Paper*

It is of some interest that the asset structure did not change significantly in the four years prior to the start of project, and that, with cash as a portion of total assets in the 8-9 percent range, the units are rather liquid.

The liability structure for 1979 shows that at some point the self-help character of the groups had changed with the introduction of outside money in the form of loans from the provincial government. Such efforts to use self-help groups to distribute foreign savings -- very common in the developing world -- usually weakens them by undermining loan collection. It is significant, therefore, that the LPN had apparently been able to reassert much of their self-help character by start of project: money owed to outsiders declined from 20.8 percent of total assets in 1979 to 10.8 percent in 1983.

The more rapid growth of the BKK system is attributable to the retention of earnings, as well as to the fact that its services are available to any credit-worthy individual in the community. The failure of the LPN system to retain a significant part of its earnings is, in turn, a reflection of its policy of benefiting its closed membership with dividend payments.

THE BKPD AND LPK OF WEST JAVA

The BKPD is a system of production banks in West Java, established in the mid-1960s. With ownership by the district government, these banks offer full services to their customers including voluntary deposits. They were the only FID-I institution authorized to accept voluntary deposits before the banking reforms in 1988. The LPK which started operations in 1972, are non-bank financial institutions with ownership held by the province and subdistricts. Developed to serve western West Java, which had no village banking services, the LPK system grew to 103 units at the start of the project.

The Project Paper did not present time-series data on the consolidated balance sheets for the BKPD and the LPK of West Java. Table 2-4 presents, instead, estimates of the position of the two systems at the start of project, which, as can be seen, do not balance.

Analysis of the structure of liabilities shows that, in contrast to the BKK and the LPN, both West Javanese systems were substantial financial intermediaries at the start of project, although only the BKPD institutions were substantial intermediaries between local savers and borrowers, with 42.6 percent of their funds coming from time and savings deposits, versus only 13.7 percent for the LPK system.

The relatively strong retained earnings position of the LPK system compared with the BKPD (21.0 percent of total assets versus 8.8 percent) suggests that the younger system was exposed to less competition than the BKPD.

THE LKURK OF EAST JAVA

The LKURK of East Java was included in the project only within the past two years. They represent the most interesting of the eight systems of RFIs currently receiving assistance from the FID-I project from the vantage point of what has been achieved to date as well as from the potential that exists for continued development. In many respects and with important exceptions, the development of the younger LKURK system parallels the development of the BKK system of Central Java five and more years prior to start of project — a period, according to Patten and Rosengard (p. 37), when the BKK system was "characterized by growth and institutionalization." The development of the LKURK system during the past two years may be characterized by "consolidation and growth." Consolidation involved moving from an unwieldy horizontal structure comprising more than 1,600 village units at start of project to a more vertically integrated structure of 185 standardized subdistrict units serving 1,320 posts.

Table 2-4
Consolidated Balance Statements for BKPD and LPK
 (Estimated as of 1.31.84)

	BKPD		LPK	
	(Rp.1,000)	(%)	(Rp.1,000)	(%)
ASSETS:				
Cash in units	221,096	6.4	65,095	8.4
Cash on deposit	134,740	3.9	6,023	0.8
Loans Outstanding	2,589,336	75.3	695,052	90.1
Plant and Equip.	497,392	14.5	4,867	0.6
Total Assets:	3,440,564	100.0	771,037	100.0
LIABILITIES:				
Time Deposits	545,425	15.6	4,000	0.5
Savings Deposits	930,050	27.0	101,986	13.2
Loans Payable	386,996	11.2	294,707	38.2
Other Payables	230,406	6.7	294,707	38.2
MPBG	292,450	8.5	87,034	11.3
Retained Earnings	302,588	8.8	161,767	21.0
Original Capital	548,404	15.9	53,036	6.9
Sub-total:	3,236,319	94.1	896,929	116.3
Unaccounted for	204,245	5.9	(125,892)	16.3
Total Liabilities:	3,440,564	100.0	771,037	100.0

Source: Annex D, page 3, *Project Paper*

The system of subdistrict units serving a number of village posts is closely modeled on the successful post system developed in Central Java. The LKURK system offers an important organizational advance over the BKK system, however, in that all units are part of a single legal entity, the LKURK, created in 1987. Responsibility for supervising and controlling this legal entity, including authority to make decisions concerning the training, hiring and removal of LKURK personnel, resides solely in the BPD. An important obstacle to effective supervision present to a greater or lesser degree in each of the other provinces visited has thus been removed in East Java.

Thus, the FID-I system which comes closest to mimicking the successful BRI Unit Desa model (Bank Rakyat Indonesia separate unit and profit center) is the LKURK of East Java, where project-initiated structural and organizational changes have succeeded in removing many of the obstacles to a

smooth flow of services to the village units. The long-term advisor to the East Java system is promoting a development strategy for the system that contains all the elements essential for vigorous and sustainable deposit-led growth. This system is most interesting from the development standpoint because of its considerable reach into the rural hinterland, extending far beyond the penetration of the BRI Unit Desa system, for example. What is being undertaken in East Java should be considered a replicable model for any Indonesian province served by a regional development bank.

SUMMARY OF FINDINGS

The FID project intervened in the operation of four existing systems of rural financial institutions that differed from one another in fundamental ways. The largest system, the BKK of Central Java, had settled into the role of specialized credit institutions largely independent from the development-minded agencies that created the BKK. Outside money showed a strong declining trend as a source of funding for the BKK operations, as did locally mobilized savings. The BKK system did not offer voluntary savings deposits, and, because of relatively relaxed loan collection, was not well positioned to adjust to the new policy environment favoring deposit mobilization.

The oldest of the four systems, the LPN of West Java, was reasserting its self-help character in the years prior to the start of project, with outside funds also declining as a percentage of total liabilities. The closed membership of these credit-union-like institutions gave them certain cost advantages over other systems, particularly in the area of loan collection. While these institutions were based on domestic resource mobilization, they provide only limited financial intermediation between savers and borrowers because their principal savings instrument is not attractive to individuals wishing to hold savings balances as a source of liquidity.

Only the BKPD and the LPK of West Java were substantial intermediaries between savers, as a group, and borrowers at start of project. Of the two, only the BKPD were financial intermediaries between local savers and borrowers.

CHAPTER THREE

PROJECT IMPLEMENTATION: INPUTS AND INTERMEDIATE GOODS

PROJECT INPUTS/OUTPUTS ACHIEVEMENT

The project provided inputs in four areas identified as essential to the achievement of project objectives — training support, technical assistance, commodities, and funds for system capitalization. These were to be used to achieve the following project outputs:

- Self-sustaining BPD training capability;
- Improved auditing, inspection, and supervision;
- Establishment of an efficient system of savings mobilization;
- Strengthened operational and accounting procedures; and
- Improved Management Information Systems (MIS).

Self-Sustaining BPD Training Capacity

Training support was aimed principally at BPD and RFI employees, although training activities were also directed at local government officials (*camats* and *lurahs*) and officials of national government agencies, notably the Ministry of Home Affairs, BAPPENAS, and Bank Indonesia. An important aspect of the training component of the project was its long-range view. FID-I did not seek merely to train a number of employees in financial institution management and development, but rather to create a sustainable training capability within the system.

The total number of individuals trained within the context of project-supported activities is given in Table 3-1. In keeping with the objective of establishing a sustainable in-house training capability within the BPDs, most of the individuals enumerated here were actually RFI employees who received their training from BPD staff.

The number of individuals trained midway through the second to last year of the project already exceeded the target number of approximately 5,300 by a wide margin. The training activities supported by the project represent a significant long-term capital investment in the system.

Table 3-1
Numbers of Individuals Trained

	West Sumatra	West Java	Central Java	East Java	Totals
1986/87	344	460	1,234	--	2,038
1987/88	231	298	271	--	900
1988/89	503	375	726	489	2,093
1989/90	72	200	906	991	2,223
	1,150	1,333	3,291	1,480	7,254

Source: Briefing Notes Supplied by DAI.

The Project Paper considered the BPD training capability to be perhaps the project's "most essential element" (p. 20). A review of available documents, discussions with FID advisors, and anecdotal impressions gained from interviews with BPD and RFI personnel in the field all indicate that an enormous amount of human capital has been created by FID-I-supported training activities during the life of project. The return to this capital is lower than it should be, however, because of organizational and structural problems existing in some parts of the system. The training activities supported by the project represent an investment in the system that should pay handsome dividends when and if structural problems are resolved.

Improved Auditing, Inspection, and Supervision

The project sought to improve the ability or capacity of the BPDs to supervise, inspect, and audit the hundreds of RFIs under their purview. This output was to be achieved by addressing personnel and reorganizational issues through technical assistance; by upgrading skills through training; and through commodity support, which would provide increased mobility and access to information. Like the training component, technical assistance represents a long-term capital investment in the system.

The technical assistance was provided principally by means of resident advisors backed up by a number of local consultants who were able to call upon short-term expatriate specialists for the improvement of management information systems, savings programs, accounting systems, and curriculum design. The technical assistance input in person-months during the life of the project is shown in Table 3-2. The project made greater than expected use of local advisors, by hiring expatriate short-term advisors for a reduced number of person-months.

Table 3-2
Technical Support: Person-Months

	Per Contract	Actual
Long-term Advisors:		
Chief of Party	32	32
Bandung	48	54
Semarang	52	58
Padang	28.5	28.5
Surabaya	30	30
	190.5	202.5
Short-term Advisors:		
Expatriate	34	13
Local		
Accounting	33	40
Computers	10	17
Training	10	18
	87	88
Total PMs	277.5	290.5

Source: DAI Briefing Notes:

A considerable investment was made during the life of the project in increasing the ability of the BPDs to inspect and audit the RFIs. Improved accounting systems were introduced into the RFIs of West Sumatra, Central Java, and East Java, and BPD personnel were trained to exploit these improved systems in supervising the village units and conducting audits. Intractable jurisdictional problems slowed progress considerably in West Java. Work is proceeding in this area in the provinces of Bali, West Nusa Tenggara, and South Kalimantan, which are relatively new to the project.

The objectively verifiable indicators of the achievement of this output were the circulation of funds and MIS reports among national, provincial, and village levels. The circulation of funds and MIS reports, while much improved during the life of project, still leaves room for considerable improvement, particularly if the flow of funds and information within the BRI Unit Desa system is accepted as a benchmark. A comparison with the BRI Unit Desa system in this regard is useful. Although each of the FID-I systems has its own peculiarities, making the formulation of all-inclusive statements difficult, it seems safe to say that none of these regional systems approaches the institutional integrity of the BRI Unit Desa system, which is a department and separate profit center within a single organization. Deficiencies in the flow of funds and of information between the RFIs and the BPDs reflect, more than any other single factor, the lack of a close, BRI-like institutional relationship between the regional development banks and the respective rural retailers of financial services. In the absence of close institutional

relationships between the various provincial development banks and their RFIs, it seems likely that the actual flow of information and funds within the various BPD systems may be considerably below capacity.

The analysis above suggests that the verifiable indicators of project success — the actual flow of MSI reports and funds within the system — may give an **underestimate** of project achievement in improving BPD ability or capacity to audit and inspect the RFIs under their jurisdiction.

The ability of the BPDs to supervise the RFIs was enhanced considerably by improved management information systems introduced with project-supplied technical assistance and commodity support. Improved MIS were installed in West Sumatra, Central Java, and East Java. A similar system is being installed in West Java. Consideration of the underdeveloped institutional relationship between the BPDs and the respective RFIs suggests that the ability of the BPDs to provide a service to the RFIs may exceed their institutional will to be involved.

Established Efficient System of Savings Mobilization

The final category of inputs, a \$3,000,000 revolving credit fund facilitated by the BPDs through established Ministry of Finance credit lines, represents a short-term investment in the system, the results of which were observable almost immediately, given the very short-term structure of most lending at the retail level.

However, given the emphasis placed on domestic resource mobilization by the GOI and the success that a number of FID-I institutions have had in obtaining funds from domestic sources, the revolving credit fund must be considered a noncrucial input. The central funding component of the project is, in fact, at odds with the stated objective of increasing RFI reliance on domestic resource mobilization and financial intermediation between rural savers and borrowers. Thus, while several FID-I systems have developed savings components, this development occurred with little assistance from the credit fund and represents a key step towards maintaining substantial financial institutions.

The relative unimportance of funds for system capitalization in the overall structure of liabilities may be seen by comparing project funds with other sources of funding enjoyed by the FID-I institutions. The provision of loanable funds by FID-I has varied considerably from one province to another, as may be seen in Table 3-3. Bali, not one of the original FID-I provinces, had received no capitalization funds at the time of the review team's visit to the field. The West Sumatran institutions, on the other hand, were net creditors to the capitalization fund during 1989, after \$475,000 in capitalization funds allocated to this province were deobligated. Significantly, the deobligation followed on the determination that the village units could not absorb the available funds. This finding may be related to the LPN reassertion of their self-help character in the years prior to the intervention, which reduced obligations owed to outsiders as a percentage of total assets. Finally, \$734,000 in capitalization funds earmarked for the BKPD and LPK systems of West Java were suspended because of monitoring and supervision problems within the province. Although this action was intended as punishment for the West Javanese system for its lack of compliance with reporting guidelines, the ultimate effect may have been more akin to relief. At midyear the BKPD and LPK systems were highly liquid, jointly funding almost 90 percent of their loan portfolio out of locally mobilized resources.

Table 3-3
Capitalization Funds
Compared with Major Sources and Uses of Funds
(as at December 1989, In Millions of Rupiah)

	West Sumatra	West Java	Central Java	East Java	Bali	All Areas
SOURCES						
Savings	1,293	22,566	4,735	911	4,339	33,844
Profits	80	1,590	1,698	807	674	3,835
Project Capital.	< 10 >	656	838	838	0	1,754
USES						
Loans	2,492	25,206	23,497	3,488	5,138	59,810
Project Capital. as % Loans	--	2.6	2.6	24.0	0.0	<u>2.9</u>
Savings as % of Loans	52.1	89.5	20.2	26.1	84.4	56.6

Source: Tables 3 & 4, DAI 4th Annual Report

As seen from Table 3-3, capitalization funds represent an almost negligible source of loanable funds for most FID institutions. System wide, only 2.9 percent of loans outstanding were financed from the project's capitalization line. Only in East Java do funds from this source represent a significant portion of RFI liabilities, but even here forced savings, surprisingly the fastest growing source of funds within the system, have overtaken project capitalization as a source of funds.

The project became actively involved in promoting savings mobilization in only one of the original four systems, the BKK system of Central Java. Ironically, this system has enjoyed less success than any of the others in funding its credit portfolio out of locally mobilized resources. The poor performance of the BKK in this important area may be attributed only partly to the design of the savings instrument introduced by the project.¹ Converting a system of specialized credit institutions to deposit-mobilizing institutions is difficult, but not for any lack of demand on the part of the FID-I clientele for good deposit facilities. Specialized credit institutions, particularly those founded with the express purpose of assisting a target group identified as being disadvantaged, tend to put the needs of the borrower foremost. Evidence already presented suggests that many BKK units at start of project did not project

¹The savings program developed for Central Java is the work of the previous long-term advisor. The present long-term advisor to Central Java is well aware of the deficiencies in the system developed by his predecessor. Armed with the results of a marketing survey he recently conducted, he is attempting to convince the BPD of the need to adopt a passbook-type savings instrument similar to that used in the BRI Unit Desa system.

a bank-like image of toughness, particularly in the area of loan collection, which is necessary to earn the respect of depositors.

Strengthened Operational and Accounting Procedures and an Improved MIS

According to briefing notes supplied by DAI, improved operating systems were installed in all provinces and improved accounting and auditing systems were completed for West Sumatra, Central Java, and East Java.

CHAPTER FOUR

A LOOK AT SOME OBJECTIVELY VERIFIABLE INDICATORS

The present chapter looks at the FID-I project from the perspective of the proposed level indicators identified in the logical framework.

LOAN TARGETS COMPARED WITH LOAN BALANCES ACTUALLY ACHIEVED

The latest consolidated figures on loans outstanding for the four original systems are from December 1989, which corresponds to Year Five of the seven-year project. The target figures, taken from Annex 1 of the Project Paper, are compared with the figures actually attained as reported in the DAI Fourth Annual Report in Table 4-1.

The loan targets established in 1984 were extremely optimistic, reflecting annual compound growth rates from a "low" of 34.5 percent for the LPN of West Sumatra to 48.9 percent for the BKPD of West Java. Despite the unrealism of these targets, they were exceeded in two of the four original systems.

Table 4-1
Loans Outstanding in the Original Four FID-I Systems
Targeted Levels Compared with Levels Actually Achieved

	West Sumatra (LPN)	West Java (BKPD)	West Java (LPK)	Central Java (BKK)	All Areas
Target, Loans Outstanding, Year Five:	5,957	19,616	2,700	40,753	69,026
Actual Figure December, 89:	2,482	20,470	4,736	23,496	51,184
Percentage Target Achieved:	41.7%	104.4%	175.4%	57.7%	74.2%

The figures presented in the above table show that the two systems characterized in the previous chapter as "demand-led," notably the deposit-mobilizing institutions of West Java, exceeded project loan targets, whereas the institutions characterized as "development-pushed," the specialized credit institutions of West Sumatra and Central Java, failed to achieve targeted loan levels.

SAVINGS AS A SOURCE OF LOANABLE FUNDS

The project strategy for increasing savings as a percentage of loans outstanding called for placing greater emphasis on voluntary deposit mobilization, with gradual phasing out of forced savings schemes tied to credit. Targets for savings as a percentage of loans outstanding, stated implicitly in the targeted consolidated balance sheets attached to the Project Paper as Annex I, were somewhat conservative when compared with the optimistic loan targets, reflecting the Project Paper's contention that "the potential for voluntary savings as a source of funds for lending remains to be tested." It is one of the abiding accomplishments of FID-I that this question has been given a definitive answer: the potential for using voluntary savings deposits as a source of funds for lending in rural areas is significant.

Table 4-2 compares savings targets for the four original FID-I systems with savings levels actually achieved.

Table 4-2
Savings Deposit Liabilities of the Original FID-I Four
Target Levels Compared with Levels Actually Achieved
 (Millions of Rupiah)

	West Sumatra (LPN)	West Java (BKPD)	West Java (LPK)	Central Java (BKK)	All Areas
Target, Savings Balances, Year Five:	2,398	3,453	379	5,736	11,966
Savings balances, as at 12/31/89:	1,328	20,407	2,159	4,735	28,629
Percentage of Target Achieved:	55.4%	591.0%	569.7%	82.5%	239.2%

Another way of measuring project achievement in savings mobilization is to compare the portion of credit portfolios funded by locally mobilized resources. A high ratio of savings to credit indicates success in becoming a financial intermediary between local savers and local borrowers. Table 4-3 compares targeted levels of savings as a percentage of loans outstanding with levels actually achieved.

The targeted levels for savings as a percentage of loans outstanding were surpassed in all of the original FID-I systems. In the aggregate the target ratio of 17.3 percent was more than tripled by the achieved ratio of 55.9 percent. Once again the most impressive results were achieved in the demand-led systems characterized by aggressive deposit-mobilizing institutions, the BKPD and the LPK of West Java.

Table 4-3
Savings as a Source of Loanable Funds
Original Target Ratios Compared with Ratios Actually Achieved

	West Sumatra (LPN)	West Java (BKPD)	West Java (LPK)	Central Java (BKK)	All Areas
Loan Targets	5,957	19,616	2,700	40,753	69,026
Savings Targets	2,398	3,453	379	5,736	11,966
Target Ratio	40.3%	17.6%	14.0%	14.1%	17.3%
Loan Balances	2,482	20,470	4,736	23,496	51,184
Savings Balances	1,328	20,407	2,159	4,735	28,629
Actual Ratio	53.5%	99.7%	45.6%	20.2%	55.9%

The global savings-to-loans-outstanding ratio for the eight systems now included in FID-I (not shown in the above table) is practically indistinguishable from the ratio for the original four systems at the end of Year Five, 55.4%. Particularly noteworthy among the systems added to FID-I are the village-based LPD of Bali, which funded fully 84.4 percent of their loan portfolio out of locally mobilized deposits as of the close of 1989. At the present rate of growth, savings captured from the public in voluntary savings deposits by the LPD will account for 100 percent of loans outstanding by the end of 1991.

NUMBER OF INDIVIDUALS SERVED BY THE FID-I INSTITUTIONS

The Number of Borrowers

The Project Paper did not discuss how the target of 1.3 million borrowers was established or how it should be disaggregated into the four systems. In addition, no figures were included on the then current number of borrowers. To compare achievements with target levels in the different systems it was necessary to reconstruct targets on the basis of available information, notably a 1985 Impact Evaluation.¹

¹The method used to reconstruct regional target figures for number of borrowers is as follows: The earliest figures available on the number of borrowers in the four original systems, from December 31, 1985, were used as a starting point to compute the compound growth rate necessary to achieve the level of 1.3 million six years later, that is, at the end of Year Seven. That rate was then compounded four times and multiplied by the figures from 1985 to yield regional targets appropriate for Project Year Five (1989), the last year for which aggregate figures on total numbers of borrowers are available. This

Table 4-4 presents data comparing 1989 target levels for numbers of borrowers reached with actual levels achieved. As a basis for comparison, the percentage increase over 1985 levels as well as the compound growth rates for this statistic are also given in this table. A glance at this table reveals that, once again, the deposit-mobilizing institutions of West Java are the standout performers, coming within a few percentage points of the target figures for number of borrowers served.

It should be noted that the percentage of target achieved by the BKK system of Central Java seriously overstates the progress made in this province, as the compound growth rate of just 1.3 percent reveals. *Based on the number of borrowers served, the deposit-mobilizing institutions of West Java are growing approximately 10 times faster than the specialized credit institutions of Central Java (compound growth rates of 12.7 percent and 13.3 percent versus 1.3 percent).* The significance of this finding should not be lost on anyone interested in retailing credit to small borrowers in rural areas of the developing world.

Table 4-4
Number of Borrowers Targeted Compared with the Number Reached

	West Sumatra (LPN)	West Java (BKPD)	West Java (LPK)	Central Java (BKK)	All Areas
1985 Levels	11,719	56,869	19,088	484,960	572,636
1989 Targets	20,252	98,257	32,886	838,059	989,572
1989 Levels	15,054	91,632	31,317	509,584	647,587
% Increase	28.5%	61.1%	64.1%	5.1%	13.1%
Compound Growth Rate	6.4%	12.7%	13.3%	1.3%	3.2%
Borrowers Reached as % of Target	74.3%	93.3%	95.2%	60.8%	65.4%

Source for 1985 levels: Table 2-19, Impact Evaluation

calculation assumes that the number of borrowers are expected to increase at the same rate in each system. The actual calculation is as follows: $1,300,000/572,636 = 2,270...$; $(1.1465)^6 = 2.2711...$; $(1.1465)^6 = 1.9809...$, = the factor by which actual 1985 borrower levels are multiplied to yield 1989 targets.

The Number of Savers Provided with Deposit Facilities

Perhaps the most important lesson emerging from the FID-I intervention is the tremendous demand for deposit facilities on the part of the population targeted for financial services. Unfortunately, no targets for numbers of savers served with deposit facilities were established by project designers. Since ignoring what has been accomplished in this area would give a misleading impression of the success the FID-I institutions have enjoyed in reaching the target population with financial services, the number of savers provided with deposit facilities at the close of Year Five is compared with the targeted levels of borrowers as a benchmark.

Once again, as the data in Table 4-5 reveal, the outstanding performance of the deposit-mobilizing institution., particularly the BKPD of West Java, must be contrasted with the sluggish performance of the specialized credit institutions of Central Java, the BKK.

Table 4-5
The Number of Savers Provided with Deposit Facilities
Actual Levels Compared with Targets for Borrowers

	West Sumatra (LPN)	West Java (BKPD)	West Java (LPK)	Central Java (BKK)	All Areas
1989 Borrower Targets	20,252	98,257	32,886	838,059	989,572
Number of Savers, 1989	35,992	235,373	52,896	500,563	824,824
Number of Savers as % of Borrowers Targeted	177.7%	239.5%	160.8%	59.7%	83.4%

SUMMARY OF PRINCIPAL FINDINGS

Although targets for end of project status were in many respects extremely optimistic, the project has enjoyed considerable success in meeting these targets in critical areas. Particularly noteworthy were the achievements in savings mobilization, in which more than 300 percent of the global target was achieved. Of greatest significance, however, was the generally superior performance of the deposit-mobilizing institutions among the original FID-I systems compared with the performance of the specialized credit institutions.

Deposit mobilizers outperformed the specialized credit institutions according to every measure applied—growth in loans outstanding, growth in number of clients served, growth in savings captured from the public, and the percentage of loan portfolio funded by domestically mobilized resources.

Deposit mobilizers appear to be demand-led institutions, which are far more sensitive to market forces than the specialized credit institutions, and relatively immune to competition in the markets they serve.

CHAPTER FIVE

THE FID-I INSTITUTIONS AT YEAR FIVE

Chapter Two presented a look at the original four FID-I systems at the start of project. Chapter Three gave an overview of project inputs and outputs. The present chapter looks at the original four FID-I systems as they appear at the end of Year Five, plus the LKURK system of East Java as it appears after less than two years of project assistance.

THE BKK SYSTEM OF CENTRAL JAVA

The following table provides a look at what has happened to the structure of the BKK assets and liabilities in the course of the project.

Table 5-1
The Changing Structure of BKK Liabilities
Comparative Balance Sheets for Three Different Years
(In Rp.1,000,000 and % of Total)

	1985	(%)	1987	(%)	1989	(%)
Assets						
Cash	347.5	2.6	329.7	1.6	511.0	0.2
Savings Accounts	<u>316.4</u>	2.4	614.5	3.0	<u>1,456.8</u>	5.2
Loan Outstanding	11,943.0	90.1	18,223.8	88.4	23,496.6	84.6
Material & Equip.	643.9	4.9	1,417.4	6.9	2,031.6	7.3
Other	7.3	0.1	19.0	0.1	290.0	1.0
Total Assets	13,258.2	100.0	20,604.14	100.0	27,788.7	100.0
Liabilities						
Loc. Govt./BPD Lns	2,642.0	19.9	4,896.2	23.8	6,801.1	24.5
Village Deposits	28.5	0.2	34.4	0.2	158.1	0.6
Tech. Serv. Deposits	204.4	1.5	383.7	1.9	311.8	1.1
Member Savings	2,156.8	11.3	2,845.2	13.8	4,734.7	17.0
Prov. Bad Debt	0.0	0.0	0.0	0.0	1,003.3	3.6
Other	0.0	0.0	0.0	0.0	2,344.5	8.4
Retained Earnings	6,246.3	<u>47.1</u>	10,087.0	49.0	10,736.8	<u>38.6</u>
Current Profits	1,980.1	<u>14.9</u>	2,357.8	11.4	1,698.3	<u>6.1</u>
Total	13,258.2	100.0	20,604.4	100.0	27,788.7	100.0

Source: Patten and Rosengard, April 1990, Table IV-10.

In discussing the data in Table 5-1, reference will be made to Table 2-2, which analyzes the direction in which the structure of BKK assets and liabilities was changing prior to the intervention of FID-I.

The most significant development observable between the two tables is the reversal of the pronounced trend for outside money to decline in relative importance in the liability structure of the BKK system prior to start of project. While funds from "Local Government and BPD Loans" plus "Other" liabilities decreased in relative importance from 40.6 percent to 20.0 percent in the years prior to start of project, during the course of FID-I these liabilities increased in relative importance to 32.9 percent of total by the end of 1989.

Increases in these categories of liabilities represent an effort to exploit the BKK network to distribute credit forthcoming from centralized sources to the rural poor. Such an effort represents a retreat from the project objective of developing the system in the direction of domestic resource mobilization and financial intermediation between local savers and borrowers.

In this context it is very interesting to note that almost half (44.2 percent) of the increase in loanable funds deriving from BPD and other government sources between 1987 and 1989 went to fund increases in savings balances owned by the BKK, almost all of which would be held at BPD.¹ In other words, close to half of the funds advanced to the BKK between 1987 and 1989 from project and other central funding sources were not lent to the BKK for on-lending to their rural clients, but rather remained on deposit in the BPD. If only project capitalization funds are considered, more than 100 percent may be accounted for by increases in BKK deposits in the various BPDs.²

Although this increase in system liquidity may be a positive development reflecting project technical assistance, there is reason to suspect that it points to a more fundamental structural problem within the BKK system. In the context of relatively sluggish growth in loans outstanding, the substantial growth in savings accounts owned by the BKK suggests that the specialized credit institutions of Central Java may be experiencing some difficulty in moving the money coming in from BPD and other government sources at project interest rates.³

Table 5-2, which shows the growth rates of different categories of assets and liabilities, provides a different perspective on this key issue.

¹The increase in local government and BPD funds between 1987 and 1989 is $6,801.1 - 4,896.2 = 1,904.9$. The increase in BKK savings deposits held in BPD in the same period is $1,456.8 - 614.5 = 842.3$; $842.3/1,940.9 = 0.442\dots$

²Net capitalization funds advanced to BKK at the end of 1989 totaled Rp.606 million. (See Table 3-3, above.) Between 1987 and 1989, BKK deposits in BPD increased by Rp. 842.3 million.

³This interpretation is strengthened by the fact that fixed and other assets also increased substantially faster than loans outstanding during the course of the project, increasing steadily from 4.3 percent of total assets prior to start of project to 8.3 percent of total at the end of Year Five.

Table 5-2
Growth Rates of Different BKK Assets and Liabilities

	1985	(%)	1989	(%)	% Change
<u>Assets</u>					
Cash	347.5	2.6	511.0	0.2	47.1
Savings Accounts	<u>316.4</u>	2.4	<u>1,456.8</u>	5.2	360.4
Loans Outstanding	11,943.0	90.1	23,496.6	84.6	96.7
Material & Equip.	643.9	4.9	2,031.6	7.3	215.1
Other	7.3	0.1	290.0	1.	N/A
Total Assets	13,258.2	100.0	27,788.7	100.0	109.6
<u>Liabilities</u>					
Loc. Govt./BPD Lns	2,642.0	19.9	6,801.1	24.5	157.4
Village Deposits	28.5	0.2	158.1	0.6	
Tech. Serv. Deposits	204.4	1.5	311.8	1.1	
Member Savings	2,156.8	11.3	4,734.7	17.0	119.5
Prov. Bad Debt	0.0	0.0	1,003.3	3.6	
Other	0.0	0.0	2,344.5	8.4	
Retained Earnings	6,246.3	<u>47.1</u>	10,736.8	<u>38.6</u>	71.9
Current Profits	1,980.1	<u>14.9</u>	1,698.3	<u>6.1</u>	-14.2
Total	13,258.2	100.0	27,788.7	100.0	109.6

Funds from local governments and from the BPD increased much faster than other major categories of BKK liabilities — member savings and retained earnings (157.4 percent versus 119.5 percent and 71.9 percent, respectively) — and considerably faster than total assets, which increased 109.6 percent in the four-year period. As may be seen in comparing the growth rates of different BKK assets in the above table, a disproportionate share of this surge of funds from outside sources went to fund equipment, fixed and other assets, and savings deposits in BPD, which grew substantially faster than loans outstanding in the four-year period.

Referring back to Table 5-1, it is interesting to note that member savings as a percentage of total BKK liabilities, which had been on a declining trend in the years prior to the start of project (see Table 2.2), continued to decline during the first two years of the project before staging a modest recovery during the last two years. Still, at the end of Year Five (1989), member savings as a percentage of total liabilities was still lower at the end of 1989 than at start of project (17.0 percent in 1989 versus 17.7 percent in 1983.)

That profits as a percentage of total assets have been on a clear declining trend since start of project, even if the provision for bad debts begun in the past year is disregarded, is another indication that the BKK may be meeting resistance on the part of borrowers as it tries to increase lending at the old rates.

THE LPN OF WEST SUMATRA

Table 5-3 presents an analysis of the structure of assets and liabilities for the LPN served by one BPD branch in West Sumatra. These figures are thus not strictly comparable with the figures for the system as a whole presented in Table 2-3.

Table 5-3
The Structure of LPN Assets and Liabilities
(LPN Served by one BPD Branch)

	March 31, 1990	(%)
ASSETS		
Cash	32,074	9.4
Inventory	5,962	1.8
Bank Deposits	3,648	1.1
Loans Outstanding	278,450	82.0
Other	19,400	5.7
Total	339,534	100.0
LIABILITIES		
Provincial Govt.	20,895	6.2
Bank Loans	0	0.0
Forced Savings	159,820	47.1
Voluntary Savings	22,377	6.6
Capital and Reserves	75,246	22.2
Other	30,604	9.0
Profit	30,592	9.0

Source: BPD West Sumatra

Perhaps the most interesting item in the analysis of the asset structure of the LPN presented above is the continued high liquidity of the units. Cash plus bank deposits owned by the LPN reporting to this BPD branch amounts to 10.5 percent of total assets, which is slightly higher than the liquidity of the system as a whole prior to start of project. The relatively high liquidity of the system suggested by these figures may account for the difficulty the project experienced moving capitalization funds through the system, as commented upon by the RIG auditors. The LPN may not have been interested in taking on the responsibility of managing funds from the BPD because, according to the figures available, they continue to be relatively flush with loanable funds of their own.

The figures presented in Table 5-3 suggest that the strong tendency observable within the LPN system — prior to the intervention — for the units to reassert their self-help character by reducing outside funds as a percentage of total liabilities has continued during the past five years. Funds forthcoming from the BPD and the provincial government, which had declined from 20.8 percent of total liabilities to 10.8 percent prior to FID, represent only 6.2 percent of total liabilities for the LPN represented in the above sample. At 47.1 percent, the portion of total assets funded out of member shares (forced savings) is virtually unchanged from the 46.8 percent at start of project, while the portion funded by retained earnings (capital and reserves) continued the rising trend observable in the years prior to the intervention.

THE BKPD AND LPK OF WEST SUMATRA

Compared with the consolidated figures on the two West Java systems presented in the Project Paper, which did not balance, the consolidated balance sheets available from the BPD for the end of 1989 shown in Table 5-4 suggest some improvement in the flow of information from the subdistrict units to the development bank.

One of the most interesting developments within West Java is the extent to which the asset structures of the two systems have come to resemble each other in the course of the six years. It is not clear, of course, how much of the change represents improvement in reporting and how much actual changes in the structure of assets. The liquidity of both systems increased during this period, as well as the portion of liquid assets held in the form of claims on other financial institutions. Within the BKPD system, loans as a percentage of total assets increased from 75.3 percent at the beginning of 1984 to 79.4 percent at the end of 1989, while within the LPK system loans outstanding as a percentage of total assets decreased to a comparable level, from 90.1 percent to 80.9 percent. It is interesting that in both cases the bulk of the difference was accounted for by changes in the percentage of total assets held in the form of plant and equipment. Plant and equipment fell sharply as a percentage of total assets within the BKPD system, from 14.5 percent of total to 5.8 percent, while the same category increased sharply within the LPK system from 0.6 percent of total to 6.3 percent.

The decline of plant and equipment as a percentage of total assets in the BKPD system reflects better utilization of installed capacity as the system grew strongly on the basis of voluntary deposit mobilization. The increase in plant and equipment as a percentage of total assets in the LPK system, on the other hand, probably reflects bookkeeping adjustments more than anything else, but a portion may also reflect new investments in the system by the local and regional governments.

Table 5-4
Consolidated Balance Statements for BKPD and LPK
(As of 31 Dec. '89 for BKPD, 31 Mar. '90 for LPK)
(In Rp.1,000,000 and %)

	BKPD	(%)	LPK	(%)
ASSETS				
Cash in units	1,421.8	5.5	313.3	4.8
Cash on deposit	1,857.7	7.2	340.2	5.2
Loans Outstanding	20,529.0	79.4	5,291.1	80.9
Plant and Equip.	1,497.3	5.8	458.8	7.0
Other	538.2	2.1	133.8	2.1
Total Assets	25,843.9	100.0	6,537.3	100.0
LIABILITIES				
Time Deposits	12,017.6	46.5		
Savings Deposits	5,004.6	19.4	2,620.3	40.1
Loans Payable	4,173.6	16.1	2,084.0	31.9
Other Payables	583.2	2.3	145.2	2.2
Capital and Resvs.	2,781.1	10.8	1,548.4	23.7
Profit Current Year	1,283.8	5.0	138.5	2.1
Total Liabilities	25,843.9	100.0	771,037	100.0

Source: BPD, West Java

The most striking development on the liability side of the consolidated balance sheets for both systems is the growing importance of voluntary savings deposits as a source of loanable funds. The growth is particularly striking in the case of the LPK, where the share of savings deposits increased from 13.7 percent of total to 40.1 percent. The BKPD system continues to outdistance the LPKs, however, both in total savings mobilized and in savings as a percentage of total assets. The capital position of both systems declined as their deposit liabilities grew, indicating better capital utilization and a higher level of financial intermediation between savers and borrowers. Although the capital position for both systems appears adequate on the consolidated balance sheet — 10.8 percent of total assets for the BKPD and 23.7 percent for the LPK — spot checking indicates that many units are overextended and could benefit from closer supervision.

It is instructive to compare developments within the BKPD of West Java with what is observable within the BKK of Central Java. On the asset side, while the liquidity of the BKK system remained essentially unchanged during the course of the project, increasing only marginally in relative terms from 5.0 percent of total assets at the end of 1985 to 5.4 percent at the end of 1989, the portion held in the form of claims on other financial institutions increased sharply. This development parallels the tendency

observed in West Java for the RFIs to hold a greater portion of their assets in the form of claims on other financial institutions, and may be considered a healthy trend in both cases, suggesting greater integration of the village and subdistrict units into the regional financial systems of both provinces. The decline in plant and equipment as a percentage of total assets in the BKPD system, however, which contrasts with an increase in this category of assets for the BKK system, suggests that while the BKK system has been building excess capacity in the course of the project, the BKPD may have approached a capacity constraint.

The diverging histories of the Central and West Javanese systems is also observable in the contrasting evolution of the structure of liabilities. Although the growth of the BKPD and LPK systems was propelled by growth in deposit liabilities, the growth of the BKK system, such as it was, was propelled by the growth in loans from BPD and local governments.

Deposit-led growth must be considered demand-led growth -- no one is forcing depositors to place their money in the BKPD and the LPK of West Java. Growth propelled by loans from the BPD and local governments, on the other hand, might be referred to as "development-led" or, perhaps more appropriately, "development-pushed" growth. The two approaches to growth have had decidedly different impacts on the asset side of the balance sheet. As noted, the fastest growing categories of assets for the development-pushed institutions during the life of the project were deposits in the development banks, which increased 360.4 percent, followed by plant and equipment, which increased by 215.1 percent. Loans outstanding, in contrast, increased a relatively modest 96.7 percent in the same period, leading to a decline in their relative importance in the overall asset structure of the BKK. An opposite trend was observable in the principal deposit-led system of West Java, where loans outstanding increased from 75.3 percent of total assets at start of project to 79.4 percent at the end of Year Five.

The significance of this counterintuitive finding should not be overlooked: the contrasting histories of the West and Central Javanese systems suggest that the best way to promote credit among FID-I clients is to promote deposit facilities.

THE LKURK OF EAST JAVA

The impact of project activities in East Java may be observed in the changing structure of the LKURK assets and liabilities, analyzed in Table 5-5, below. This table also shows growth rates for various categories achieved during the three quarters ending March 31, 1990.

One of the first things that should be noted in the table is the extremely rapid growth of the LKURK system. Total assets increased by 79.8 percent in the three quarters between June 1989 and March 1990, paced by growth in loans outstanding of 85.7 percent. These figures should be compared with the 96.7 percent increase in loans outstanding for the BKK system in the 16 quarters ending December 1989.

On the liabilities side, the relative importance of project funding in East Java is observable in the strong growth of loans as a source of loanable funds, which more than doubled in the three quarters, from Rp.502.6 million to Rp.1,081.4 million.

The strong growth of the LKURK system seems to contradict the finding presented above that development-led, externally funded growth leads to disappointing results. In fact, the BKK system also

grew spectacularly in the early years characterized by significant external funding. External funding is clearly useful in establishing credit systems in areas poorly supplied with formal financial services, since it gives the young institutions a ready source of income. The evidence from East Java, however, suggests that in this market starved for financial services deposit-led growth might have been even more spectacular.

As may be seen in Table 5-5, savings liabilities increased faster than any other category of assets or liabilities during the last three quarters, 139.2 percent, from Rp.502.6 million to Rp.1,202.3 million, compared with 85.7 percent growth in loans outstanding (assets) and 105.2 percent growth in loans from BPD and provincial government (liabilities).

Table 5-5
The Evolving Structure of LKURK Assets and Liabilities
(Rp.1,000)

	June 1989	(%)	March 1990	(%)	% Change
<u>Assets</u>					
Cash	85,366	3.4	212,240	2.7	
Bank	172,389	6.8	147,287	3.2	
Loans	2,360,216	93.0	4,381,986	96.0	85.7
Provisions	< 80,927 >	< 3.2	< 88,054 >	< 1.9	
Fixed	N/A	>	N/A	>	
Other	—		—		
Total Assets	2,537,044	100.0	4,562,457	100.0	79.8
<u>Liabilities</u>					
Savings					
Forced	502,558	19.8	1,202,268	26.4	139.2
Voluntary	0	0.0	0	0.0	
Deposits	0	0.0	0	0.0	
Loans	527,106	20.8	1,081,482	23.7	105.2
Capital	942,243	37.1	858,853	18.8	
Government	370,048	14.6	462,500	10.1	25.0
Current Profits	195,089	7.7	957,353	21.0	
Total	2,537,044	100.0	4,562,457	100.0	79.8

Source: Computer Print-out supplied by DAI Advisor

The rapid growth in savings deposits in a facility not readily accessible to savers — in practice, the LKURK enjoy considerable latitude in limiting the withdrawal of funds deposited in these accounts

— must be interpreted as evidence of an exceptionally strong demand for a deposit facility on the part of the target population in East Java as well as a measure of the limited extent to which the LKURK clientele are served by competing institutions.

The strong growth of savings deposits in a system that does not offer an attractive deposit facility suggests a genuine effort to meet that demand would result in even more spectacular growth.

SUMMARY OF PRINCIPAL FINDINGS

The diverging histories of the BKK of Central Java and the BKPD of West Java during the life of the project demonstrate the superiority of the deposit-led approach to rural financial intermediation over the traditional credit-led intervention. The effort to promote lending in the specialized credit institutions of Central Java by an injection of additional funds from centralized sources (the BPD and provincial government) has been followed by relatively sluggish growth and a decline in loans outstanding as a percentage of total assets. Conversely, an effort to punish the West Javanese systems by withholding project funds has been followed not only by tremendous growth in deposit mobilization, but, within the BKPD system, to an increase in loans outstanding as a percentage of total assets. The superfluousness of project funds as a means of promoting rural smallholder credit may be seen in the fact that more than 100 percent of project funds carried as liabilities on the BKK books at the end 1989 may be accounted for on the asset side of the consolidated balance sheets by increases in deposits in the regional development bank.

The stagnating LPN of West Sumatra seemed impervious to project activities. The strong tendency observable within the LPN system, prior to the intervention, for the units to reassert their self-help character by reducing outside funds as a percentage of total liabilities continued during the first five years of the project.

The strong growth of the LKURK system only appears to contradict the finding that development-led, externally funded growth leads to suboptimal results. Savings liabilities grew faster than any other category of assets or liabilities in East Java since this province was included in FID, suggesting that a conscious strategy of deposit-led growth would have led to even more spectacular results.

CHAPTER SIX

MARKET RATES OF INTEREST AND THE DEMAND FOR FINANCIAL SERVICES

The present chapter presents evidence that small borrowers use the credit facilities provided by specialized credit institutions in much the same way that their counterparts in areas served by deposit-mobilizing institutions use the deposit facility. Much of this evidence was obtained from an analysis of the data collected from the 1,010 individual ledger cards sampled at the 13 rural institutions visited in the course of the field work. The central theme of this chapter is that credit and deposit facilities are economic substitutes and that when market forces are allowed to set the prices of these facilities, larger numbers of rural poor elect to substitute a deposit facility for credit as a source of liquidity.¹

THE DEMAND FOR CREDIT ON THE PART OF FID-I CLIENTS

One of the assumptions on which FID-I was based was that the demand for small loans on the part of the target population is relatively inelastic with respect to the rate of interest. Data collected on the basis of a random sample of 659 individual ledger cards provided a basis for testing this assumption. The 659 cards were arranged nonrandomly into seven groups and average loan size and average collected rate of interest for each group was calculated.

The collected rate of interest was used as the explanatory variable, rather than the stated or nominal rate of interest charged by the various institutions, to reflect the fact that most FID-I clients are repeat borrowers. In other words, as established customers, they know what rate of interest they expect to pay, given the collection policies of the institutions involved.

The use of average figures for loan size and rates of interest is legitimate since it allows the mythical *ceteris paribus* state to be approached. In the aggregate, other things, albeit not necessarily equal, tend to cancel out.

When plotted on Cartesian coordinates, or graphed, these seven pairs of numbers constitute a sketch of the demand curve for credit on the part of FID-I borrowers. One need not be an economist or a statistician to grasp the significance of the groupings presented in Table 6-1.

¹A note on the demand curve: small suppliers operating in large markets may disregard the demand curve. From their perspective, the demand curve is relatively (or perfectly) flat. Larger suppliers, on the other hand, may not ignore the shape of the demand curve. The larger the supplier, the more steeply the demand curve will appear to slope down to the right. The relevance of this lesson from elementary economics to the FID-I institutions derives from the fact that rural financial markets are small. Formal financial institutions, even small ones, may be large enough relative to the markets in which they operate to be affected by the shape of the local demand curve.

Table 6-1
Effective Annual Rate of Interest and Loan Amount:
A Glimpse of the Demand Curve for Credit

Province	Smpl. Size	Amount of Loan	Balance Out.	Interest Collected	Age of Loan ¹	Estimate R. of Int. ²
C. Java	100	88,400	39,680	12,940	240	49.6
E. Java	152	75,099	54,351	9,107	125	48.9
SCIs	438	215,952	139,882	24,128	171	36.8
W. Sumatra	94	327,772	192,226	28,882	155	35.4
Bali	136	248,936	184,689	25,914	151	33.9
DMIs	221	449,140	376,680	37,774	160	22.9
W. Java	177	659,124	501,595	55,787	181	17.0

¹In Days

² $(365/\text{Age of Loan}) * (\text{Interest Collected}/\text{Balance})$

Source: Analysis of 659 Individual Loan Ledger Cards

Small loans from Central Java and East Java are associated with high collected rates of interest, whereas the larger loans of West Java and the Deposit Mobilizing Institutions are associated with low collected rates of interest. Loan amounts in the middle range -- West Sumatra, Bali, and the Specialized Credit Institutions as a group -- are associated with rates of interest intermediate between the two

Alternatively, one may analyze the pairs of numbers statistically to yield an algebraic expression of the relationship between loan size and the loan rate of interest: demand for credit = $\text{Rp. } 900,000 - \text{Rp. } 17,000 * \text{Rate of Interest.}^2$

This equation, which should not be understood literally, says that the amount of credit demanded by FID-I borrowers varies inversely with the rate of interest and that the total amount demanded, on average, is less than Rp 900,000 for rates of interest above zero. For every single point rise in the collected rate of interest the amount demanded will decline from the theoretical maximum of Rp 900,000 by Rp.17,000.

Although estimates of demand are considered most questionable at the extremes -- in this case, for very high and very low rates of interest -- the extremely good fit of the regression tempts one to speculate. It may indeed be true, as the equation suggests, that for positive rates of interest there may

²The fit of the regression was extremely good: Standard Error of Estimate of Demand is 51,300; Standard Error of Coefficient is 1,700, for a ratio of 10; R Squared is 0.952. The T Test is significant at the 99.5% confidence level.

be a maximum amount of debt that FID-I borrowers may be persuaded to take on, in the neighborhood of Rp.900,000. To get the typical FID-I borrower to take on more financial obligations than that, negative rates of interest may be necessary. On the other hand, the equation seems to suggest that when interest rates rise above a certain point (about 53 percent per year), the typical FID-I borrower might cease being a borrower altogether and become a money lender instead, which he could do by liquidating some nonmoney asset such as a savings account or possibly gold.

Both possibilities are consistent with observed behavior of rural people, who, as a rule, are wary of debt and — contrary to the fundamental hypothesis of the cycle-of-poverty school — typically are in the possession of small assets that may be converted to cash when needs or opportunities arise.

Of relevance for the FID-I institutions is the fact that there seems to be considerable price elasticity of demand for credit. It is well understood from economic theory that price elasticity of demand for any good or service emerges only when suitable alternatives or substitutes are available. The designers of interventions into rural credit markets should, therefore, ponder what these substitutes to credit might be.

THE DEMAND FOR DEPOSIT FACILITIES

The most obvious place to look for an economic substitute to credit as a source of liquidity is the other common financial service available to individuals, a deposit facility.

The following table, which presents statistics derived from an analysis of the individual ledger cards, suggests that the way FID-I clients use deposit facilities mimics their use of the credit facility.

It is of considerable significance that despite almost 10 deposits for each withdrawal, savings balances do not grow dramatically. The pattern of 10 deposits for each withdrawal mimics the behavior of borrowers in both the specialized credit institutions and the deposit-mobilizing institutions, who make about 10 payments for each loan.

Although gross figures show great variation in average savings balance between the provinces with aggressive voluntary deposit mobilization (West Java and Bali), on the one hand, and those with underdeveloped voluntary deposit facilities (Central Java, East Java, and West Sumatra) on the other, a closer look at a small random sample of voluntary savings deposits in four of these regions suggests great similarity across provinces in the way FID-I clients use deposit facilities when they are available.

Table 6-2
Evidence of Demand for Deposit Facilities:
Deposit Transactions compared with Loan Payments
(Data from Sample of Individual Savings and Loan Ledgers)

DEPOSIT ACTIVITY						
Type of RFI	Sample Size	Beginning Balance	Ending Balance	Number of Deposits ²	Number of ² Withdrawals	
DMI	202	46,682	50,196	9.4	1.2	
SCI	149	10,003	31,427	2.3	0.3	
LOAN ACTIVITY						
Type of RFI	Sample Size	Amount Loan	Balance Outstand.	Number of Payments	Age of Loan ³	Pmts./Year ⁴
DMI	221	499,140	376,682	4.6	160	10.5
SCI	438	215,952	139,882	4.7	171	10.0

²Within the 12 month period prior to drawing the sample.

³In days.

⁴Payments per year = (365/Age of Loan)*(Number of Payments)

The random sample of voluntary deposits from East Java was taken from one of the LKURK institutions participating in the pilot passbook savings mobilization project, while the sample for Central Java was taken from two BKK institutions participating in the Tamades savings scheme.

What is significant in Table 6-3 is the relative similarity of average savings balances in the random sample of individual savings ledgers from the four provinces with "open" RFI's -- East Java, Central Java, West Java and Bali -- and the average loan balance in the two provinces with underdeveloped voluntary savings programs. The fact that the loan balances in the two provinces characterized by specialized credit institutions -- Central Java and East Java -- are very close to the average savings balance in the institutions offering voluntary deposit facilities, suggests that similar economic considerations underlie the use of both types of facility.

Table 6-3
Random Sample of Savers and Borrowers, Loans and Deposits
Five Provinces, July 1990
(Rp.1,000)

	West Sumatra	West Java	Central Java	East Java	Bali	All Areas
Sample Size	136	177	100	152	94	659
Avg. Loan Bal.	192	742	40	54	185	148
Sample Size	48	99	76	25	103	351
Avg. Sav. Bal.	7	62	37	61	38	42

Source: Random Sample of Individual Ledger Cards

These figures are consistent with the discussion accompanying Table 7-1, that in Central Java and East Java, where attractive deposit facilities are generally not available, RFI clients use credit as much as their counterparts in Bali and West Java use savings deposits.

Empirical evidence from a great many contexts, including rural Indonesia, suggests that when consumers of financial services are required to bear the full costs of providing services, at any given time, more individuals at the margin of the formal financial system will demand the financial service of a deposit facility than the financial service of credit.

Some examples include:

- A rapidly growing rural bank in Bali, founded in October of 1989, also visited briefly during the course of field work for GTZ, was found to have 4,238 deposit customers as against 1,290 credit customers, for a preponderance of savers over borrowers of 3.36 to 1. This BPR was one of many RFIs observed in Bali and West Java offering door-to-door service;
- The LPD at Kemoning, visited during the fall of 1989 on an unrelated USAID-funded consultancy to Bali, served 1,795 deposit customers versus 443 borrowers, for a saver-to-borrower ratio of 4.1; and
- The LPD Blahbatuh, visited during the field work preparatory to this report, served 2,834 savers and 747 borrowers at the end of June 1990, for a saver to borrower ratio of 3.79.

SUMMARY OF FINDINGS

This chapter presents conclusive evidence from rural Indonesia that deposit facilities constitute an economic substitute to credit as a source of liquidity and that when market forces are allowed to set the price of financial services, far more rural individuals demand the service of a deposit facility than credit.

That savings deposits are substitutes for credit means that as deposit facilities become more generally available in rural areas, the price elasticity of demand for small loans will increase, making it more difficult for specialized credit institutions to survive. As increasing numbers of small borrowers opt for deposit facilities as a means of satisfying recurring demands for liquidity, there will be pressure for average loan size to increase and for the loan rate of interest to decline along the more steeply inclined (elastic) demand curve.

CHAPTER SEVEN

THE IMPACT OF DEPOSIT MOBILIZATION ON LENDING

The present chapter examines the effect that voluntary deposit mobilization has on the provision of credit in rural areas. The principle finding of this chapter is that deposit mobilization imposes a discipline on the financial institution that ultimately works to the benefit of borrowers.

In discussing savings mobilization it is important to recall the distinction between voluntary deposit mobilization and forced saving schemes. Voluntary savings deposits are a financial service for which a demand exists. Forced savings deposits, by way of contrast, do not constitute a financial service in their own right, but are merely part of the cost of a separate financial service — credit.

Among the FID-I institutions, voluntary deposit mobilization is a rather recent development, reflecting the recent CK policy emphasis on financial deepening. In fact, until recently, only one of the FID-I systems enjoyed the legal right to accept voluntary deposits from the public. The bulk of savings mobilized in Central Java and East Java continue to be forced. In West Sumatra, as noted earlier, the otherwise useful and important distinction between forced and voluntary savings deposits is blurred by the fact that the "voluntary" savings balances owned by the LPN members are not treated as deposits, but rather as shares. Although exceptions may be observed in practice, in principle the LPN member may withdraw his or her funds only by withdrawing from the LPN all together. If a member wishes to have access to his savings he must take out a loan. Such a deposit facility is of little interest to individuals wishing to satisfy their demand for liquidity by building up easily accessible savings balances. The savings balances in the BKK of Central Java and the LKURK of East Java, likewise, do not represent true savings balances held as part of a strategy for satisfying a demand for liquidity, but rather only a compensating balance required for a loan.¹

TWO PROVINCES WITH EFFICIENT SAVINGS MOBILIZATION

An efficient system of voluntary deposit mobilization was observed in only two provinces, West Java and Bali. Systems in these provinces offer a deposit facility employing a passbook instrument similar to the one offered by the FID-II/BRI Unit Desa. Although results vary from one institution to another, RFIs in these provinces are aggressive deposit mobilizers, competing effectively with banks and other institutions both in quality of service and in the deposit rate of interest.

¹At the time of the field work, no province-wide system of savings mobilization had been instituted in East Java. The pilot project recently underway in East Java, which employs a passbook instrument similar to those used successfully in Bali and West Java, would appear to be headed for success. As of November 1990, all KURK personnel have been trained in the use of the system tested in the pilot project, which will be implemented throughout the province as soon as the individual ledger cards and other forms are available.

AN INDEX OF FINANCIAL INTERMEDIATION

Table 7-1 provides an objective measure of the differing extent to which the FID-I institutions are engaged in financial intermediation between savers and borrowers. The index used here, the ratio of loan balance to savings balance, provides a rough measure of the extent to which the RFI allows borrowers to be net creditors to the system. A low ratio means the borrowers hold relatively large savings balances compared with the balance of their loan, which is a clear sign that the institutions are not attracting enough voluntary deposits to act as effective intermediaries between savers and borrowers.

Among the FID-I institutions, the relatively low loan-to-savings-balance ratio for individual borrowers in the LPN of West Sumatra (1.4 in the sample of loan ledgers) reflects the unattractiveness of the savings instruments offered by these institutions, as well as the modest proportions of the credit facility, despite the higher-than-average loan amount. On balance, borrowers at the LPN of West Sumatra hold savings balances of \$100 for every \$140 of credit they owe the LPN.

Table 7-1
A Measure of Financial Intermediation
Data from Random Sample of Loan Ledger Cards
(Averages in Rp.1,000)

	West Sumatra	West Java	Central Java	East Java	Bali	All Areas
Sample Size	136	177	100	152	94	659
Loan Amount	328	659	88	75	249	311
No. Payments	5	5	5	5	4	5
Loan Balance	192	502	40	54	185	219
Sav. Balance	115	80	14	13	36	56
Ratio:LB/SB-- >>	1.4	6.3	2.9	4.2	5.1	3.9

Whenever borrowers are found to hold high savings balances in the same institution from which they have received credit, there is reason to suspect the quality of the credit facility provided by that institution. With respect to the facilities offered and the frustration to which borrowers and savers are subjected, an interesting symmetry obtains: in West Sumatra individuals wishing to be net borrowers — essentially all the members of these small, closed-membership institutions — are forced by institutional constraints to become substantial financial savers. Conversely, in Central and East Java, it is clear that many individuals who would prefer to be savers are forced, by a need for liquidity and the absence of attractive substitutes, to become borrowers.

Only in Bali and West Java are savers allowed to be savers and borrowers allowed to be borrowers. Only in Bali and West Java do we find institutions fulfilling their role as intermediaries between savers and borrowers in a meaningful way. In these deposit-mobilizing institutions, borrowers are permitted to hold relatively small savings balances, as evidenced by the higher loan-to-savings-balance ratios, highlighted in Table 7-2 for ease of reference.

Whereas this provides evidence that the deposit-mobilizing institutions among the FID-I RFI's provide a better credit facility in the sense of superior financial intermediation between savers and borrowers and greater financial leverage to borrowers, the following table shows that the deposit-mobilizing institutions visited in the course of the field work also provide a superior credit facility according to more traditional measures.

Borrowers typically disagree with lenders about the credit facility in three principal areas. As a rule, borrowers are looking for (1) larger loans for (2) longer terms and (3) lower rates of interest, whereas lenders are inclined to reduce the loan amount, shorten the term, and increase the rate of interest.

Table 7-2 shows that in the three crucial areas in which borrowers and lenders tend to disagree, from the point of view of the borrowers, deposit-mobilizing institutions outperform the specialized credit institutions by wide margins.

Table 7-2
Indices of Quality of Credit Facility:
Deposit Mobilizers Compared with Specialized Credit Institutions

	Sample Size	Average Loan Size	Term of Loan	Rate of Interest ¹
DMI	221	499,140	378	22.9
SCI	438	215,952	181	36.8

¹ Calculated as follows: $[365/\text{Age of Loan}] * [\text{Interest Collected}/\text{Balance Outstanding}]$

Source: Random sample of 659 individual loan ledgers

The higher rates charged by the specialized credit institutions compared with deposit mobilizers is frequently attributed to the higher unit costs of servicing numerous small loans. The deposit-mobilizing institutions are able to offer lower rates, it is argued, because of the lower unit costs associated with servicing the larger loans characteristic of such institutions. The argument is so plausible that it is seldom challenged. However, global cost figures provided by DAI show that higher costs cannot be accepted as an explanation for the higher rates of interest collected by the specialized credit institutions.

As may be seen in Table 7-3, operational expenses as a percentage of loan amount for the preeminent specialized credit institutions within FID-1 — the BKK of Central Java — are less than half the figures for the deposit mobilizing institutions of West Java, and substantially lower than the village-based LPD of Bali.

Table 7-3
Operational Expenses as a Percentage of Loans

	West* Sumatra ²	W. Java (LPK)	W. Java (BKPD)	Central Java	East Java	Bali
Average Loan	344,000	277,376	296,709	75,000	30,666	133,105
Operational Expenses per Loan	3,100	35,465	44,880	4,300	N/A	8,530
Expenses as % of Loan	0.9%	12.8%	15.1%	5.7%	N/A	6.4%

*As at June 1989.

Source: DAI 4th Annual Report, Appendix B, "Performance Indicators," nos. 5 and 12.

There can be little doubt that the higher costs observed in the deposit-mobilizing institutions of West Java and Bali derive from the high-quality deposit facility they provide savers in their regions.

Because the deposit-mobilizing institutions incur costs that do not exist or that are not significant for specialized credit institutions,³ they require, *ceteris paribus*, a higher spread to reach the financial break-even point than specialized credit institutions lending their own capital. The deposit-mobilizing institutions are thus at a competitive disadvantage with the more narrowly focused institutions. Theoretically, specialized credit institutions should be able to out-compete deposit mobilizers in the provision of credit to small borrowers. In practice, the deposit-mobilizing institutions appear to

²The figures for West Sumatra in the above two tables are not strictly comparable with the figures for the other provinces. The cost figures are not comparable because of the importance of volunteers in the management of the small, credit-union-like institutions in that province. As to the interest income figures, the calculated APR for the LPN of West Sumatra, grouped among the specialized credit institutions, understates the effective rate of interest to the borrower more severely than in the other provinces because of the higher compensating balance LPN borrowers are forced to maintain, observable in the low loan balance to savings balance ratio characteristic of these institutions (see Table 7-1).

³These costs include interest expenses on deposit liabilities as well as the operational costs of servicing numerous small savings accounts.

outcompete the specialized credit institutions in all important areas of credit delivery — cost of credit, amount of loan, term of loan, and leverage available.

The competitive pricing of the credit facility on the part of the deposit mobilizers indicates that these institutions are more sensitive to market forces than the specialized credit institutions. This greater sensitivity to market forces may be explained at least in part by the fact that by offering attractive deposit facilities, they offer their customers a substitute to credit as a source of liquidity, effectively undercutting their own market position.

The ability of the specialized credit institutions to escape the discipline of market forces is suggested by an apparent lackadaisical approach to loan collection on their part, clearly visible in the analysis of the 659 loan ledger cards sampled during field work. Table 7-4 presents a statistic called the "Late Ratio," which is here defined to be the difference between the loan balance actually outstanding at the time the loan ledger was drawn into the sample and the expected balance as a percentage of the original loan amount. Although the calculation of the expected balance is merely approximate, since it is based on average figures and assumes continuous variables, the difference between the late ratios for the deposit-mobilizing institutions — 17.8 percent — and the specialized credit institutions — 59.2 percent — is so great that an underlying real difference on the order of magnitude suggested by the ratio must be presumed to exist.

Table 7-4
An Indicator of Loan Collection:
Deposit Mobilizers compared with Specialized Credit Institutions

	Amount of Loan	Term of Loan	Age of Loan	Balance Outstand.	Expected Balance ¹	Late ² Ratio
DMIs	499,140	378	160	376,682	287,864	<u>17.8</u>
SCIs	215,952	181	171	139,882	11,931	<u>59.2</u>

¹Expected Balance (EB) calculated as follows:

$$EB = \text{Loan Amount} - \text{Loan Amount} * (\text{Age of Loan} / \text{Term of Loan})$$

²Difference between Balance Outstanding and Expected Balance as a percentage of Amount of Loan.

Source: Random Sample of 659 Loan Ledgers from 13 RFIs

It is apparent that deposit mobilization imposes a discipline on the financial institution that ultimately works to the advantage of borrowers in the form of lower costs and better service. This discipline is imposed from several directions. On the one hand, deposit-mobilizing institutions must collect their loans. A poor reputation in this important area will scare depositors away. Improved loan collection allows the nominal loan rate of interest to fall without affecting the receipts of the lending

institutions, or, alternatively, permits the deposit rate of interest to rise. Secondly, since deposit mobilizers offer small savers a low-cost, convenient alternative to credit as a source of liquidity, the credit facility must compete with the deposit facility for smallholder business, even within the same institution. Efforts to extract a monopoly price for small loans fail in a deposit-mobilizing institution when potential small borrowers simply walk away from the loan window and to the savings facility.

The greater competitiveness of the deposit-mobilizing institutions is further evidence that the deposit facility is an economic substitute to credit, effectively undercutting any monopoly power the institutions may enjoy in the provision of credit in the local market.

SUMMARY OF PRINCIPAL FINDINGS

Based on an analysis of the loan data collected at the 13 FID-I institutions, supplemented by global figures provided by DAI, deposit-mobilizing institutions — the BKPD and LPK of West Java and the LPD of Bali — provide a credit facility far superior to the facility provided by the much-discussed specialized credit institutions of Central Java and the younger LKURK system of East Java.

The explanation for the superiority of the credit facility provided by the deposit-mobilizing institutions is the greater sensitivity of these institutions to market forces. The BKK and the LKURK, despite the use of what appear to be market prices for the credit facility, are not demand-led institutions, but rather institutions that have learned, with project assistance, to exploit their essentially monopolistic position as the only institutional suppliers of liquidity to their rural constituents.

CHAPTER EIGHT

PRINCIPAL FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

FINDINGS AND CONCLUSIONS

The project design appeared to underestimate the extent to which the four original FID-I systems were moving in distinct developmental directions. Comparison of the before and after states of these systems shows that, for the most part, they continued to develop along their respective trend lines clearly visible at start of project. The project does not seem to have had a significant impact on the direction in which the different systems were developing. This may reflect the project's preoccupation with capitalizing the systems to the apparent neglect of important structural and policy issues. Nevertheless, important objectives were achieved.

Training and technical assistance provided by the project constitute a considerable capital investment in the regional systems. Any investment in further capacity may be expected to produce observable returns subject to supply or capacity constraints presently operating on the development of the system. Ultimately, the issue at stake is not the value of the technical assistance but the types of financial services offered by the systems. The problems facing the systems can only be dealt with by changing the emphasis from the provision of credit to encouraging savings mobilization.

The diverging histories of the BKK of Central Java and the BKPD of West Java during the life of the project demonstrate the superiority of the approach to rural financial intermediation which places primary emphasis on voluntary deposit mobilization. The effort to promote lending in the specialized credit institutions of Central Java by an injection of additional funds from centralized sources (the BPD and provincial government) has been followed by relatively sluggish growth and a decline in loans outstanding as a percentage of total assets. Conversely, an effort to punish the West Javanese systems by withholding project funds has been followed not only by tremendous growth in deposit mobilization, but, within the BKPD system, by an increase in loans outstanding as a percentage of total assets.

Despite the fact that purpose level indicators for end of project status were in many respects extremely optimistic, the project has enjoyed considerable success in meeting these targets in critical areas. Of greatest significance is the generally superior performance of the deposit mobilizing institutions among the original FID-I systems compared with the performance of the specialized credit institutions. Deposit mobilizers outperformed the specialized credit institutions according to every measure applied: growth in loans outstanding, growth in number of clients served, growth in savings captured from the public, and the percentage of loan portfolio funded by domestically mobilized resources.

Although the project may be considered a success by most objectively verifiable measures, it must be considered a disappointment when measured against what might have been achieved with a slightly different orientation. The project was not prepared to fully take advantage of the new policy environment emphasizing domestic resource mobilization. Too much emphasis in project design was placed on further capitalizing already relatively capital-heavy systems (the BKK of Central Java and the LPN of West Sumatra) through the provision of training, technical assistance, and actual loan funds, and too little

emphasis on bringing about the policy and structural changes that would allow the FID-I institutions to get in step with exciting developments in the broader financial sector.

The BRI Unit Desa system provides a model relevant to the FID-I regional systems. The key to the success of that system is a structure that allows market forces to direct the flow of services to the retail outlets. The BPD will not provide a similar flow of services to their respective RFIs until they are assured a return for their efforts similar to the return enjoyed by BRI.

Part of the success of the BRI Unit Desa system reflects the fact that an enormous amount of capital had been put in place during prior interventions. To a large extent, the tremendous growth of the system since its reorientation towards deposit mobilization and market pricing for financial services represents a belated return to capital that was already in place. A similar situation obtains in a number of the FID-I provinces. An enormous amount of capital has been put in place during the life of the project and before. Much of this capital is being underutilized, particularly in the older systems of specialized credit institutions, which are beginning to stagnate.

The LKURK system represents the most promising development within the FID-I project. Objective measures of what has been achieved in East Java, impressive though they might be, underestimate the tremendous potential that resides in this BRI Unit Desa-like model being developed in that province. An investment has been made in infrastructure and trained personnel that should provide the basis for explosive deposit-led growth.

The FID-I institutions enjoy a monopoly in the provision of institutional credit in most of the markets they serve. This position gives them the option of charging a monopoly price for the liquidity they control. Private investors may be interested in buying into such systems because of the potential they offer for exploiting this position.

RECOMMENDATIONS

FID-I should be extended and the extension should be used to plan a follow-on project (FID-III) that could set a new standard for donor interventions in rural financial markets.

The follow-on project should acknowledge that a deposit facility is a financial service in its own right, that tremendous demand exists for this service in rural areas, and that great potential for institutional development resides in an effort to meet this demand with a flow of services from the larger financial institution to the retail outlets, and from the retail outlets to the rural smallholders. The new intervention should acknowledge that the sustainability of such a flow of services has far more to do with the rewards associated with providing the service than the mere ability or capacity. The standard-setting intervention should focus on the supply of financial services, both credit as well as deposit facilities, but should allow supply and demand to determine whether there is a net flow of credit in one direction or the other.

Activities during the extension should be directed toward convincing decision makers at appropriate levels of the enormous potential that resides in the FID systems. There should be more research, more position papers, more studies -- in general, an unselfconscious commitment to fostering policy changes that will lead to the reorientation and restructuring of the BPD systems in the direction taken by the BRI Unit Desa. Considering the large investment USAID has made in rural financial institu-

tions in Indonesia, special attention should be given to a study of the harm that may be done to small deposit-mobilizing institutions by PAKJAN.

The most promising option for improving the flow of services to the RFIs involves the sale of part interest in the retail outlets to larger financial institutions, which would then find it in their own interest to provide the flow of services without which deposit-mobilizing, retail-level units cannot flourish. The BPDs would be the most logical candidates to take on such a role as representatives of Bank Indonesia indicated in interviews. USAID should do what it can in any future intervention to ensure that changes in ownership of the FID-I RFIs take these institutions in the forward-looking, developmentally more significant, demand-led direction of deposit-based rural financial intermediation rather than in the self-limiting direction of the specialized credit institution. There is probably no substitute in this area for solid market research and the discussion of relevant successful models, such as the BRI Unit Desa.

A-1

APPENDIX A
SCOPE OF WORK

ARTICLE I - TITLE

Financial Institutions Development Project (497-0341): Phase I - Bank Pembangunan Daerah (BPD) and Phase II - Bank Rakyat Indonesia (BRI).

ARTICLE II - OBJECTIVEA. Phase I

The general purpose of this evaluation is to provide the GOI Ministry of Home Affairs and USAID with an overall assessment of project performance during the last seven years (1984-1990) and based on the lessons learned from the overall FID (BPD) experience, determine whether an extension of the PACD or a follow-on FID-like activity is appropriate. The evaluation seeks answers to the following general questions:

- a. Were the Project's goals and purposes as reflected in the Project's logical frame work achieved and were they consistent with the Mission's program as stated in the CDSS guidance and with the current GOI banking deregulations as outlined, inter-alia, in the GOI PAKTO 27 and PAKMAR 25? What should be done in the last year of this Project to help prepare for any post project activities?
- b. What evidence is there of sustainability of both the operations of the Rural Financial Institutions (RFIs) assisted by the Project and the linkages between the RFIs and the Regional Development Bank (BPD) and also other GOI central and provincial agencies? What does this mean for possible future (post-project) activities?
- c. What changes in the mix of project inputs, e.g. T/A skills, training programs, commodities and capitalization, may be necessary to support remaining project activities and to be responsive to needs of successful operations of the assisted RFI systems? What does this imply for possible post-project activities?
- d. What measures could have been taken to establish more effective project management arrangements so as not to detract from the technical roles and duties of the contract T/A team?
- e. Given the Mission's CDSS objectives, the current operational status of the RFI systems, and the continuing GOI banking deregulation measures is future (post-project) Mission's involvement in this sector appropriate and necessary? If so, what forms should assistance take? If not, should the Mission attempt to invite other donors to take over assisting the RFI system? What lessons have been learned in FID Phase I which must be applied in any potential follow-on activities?

ARTICLE III - STATEMENT OF WORK

A. Phase I

The Financial Institutions Development (FID) Project is a \$39.75 million two-phase project. Phase I consists of the development and expansion of existing village-based credit institutions in selected provinces, by working through two ministries, i.e. the Ministry of Finance, and the Ministry of Home Affairs, and the provincial development banks (Bank Pembangunan Daerah - BPD) within the selected provinces. Phase II is designed to support policy and institutional development of the Bank Rakyat Indonesia (BRI) Kecamatan level (sub-district) Unit Desa System. This Evaluation focusses only on Phase I activities.

Phase I of the Financial Institutions Development (FID) Project is a US \$22.2 million project to develop and expand existing Rural Financial Institutions (RFI) in selected provinces to extend credit to borrowers, to expand loan portfolios beyond trader credits to include small entrepreneurs and to mobilize voluntary savings.

The project primarily provides training, technical assistance and equipment to develop the staff and operational procedures and to forge a closer link between the RFI systems and the provincial banks (BPD) responsible for supervision, training and inspection. Provincial Development Banks provide supervisory guidance, technical expertise, training and access to capital. In doing so, the project attempts to demonstrate the elements of a viable, self-financing RFI system applicable elsewhere throughout Indonesia. The Project has also been providing funds to capitalize individual RFI units and help expand loan portfolios. Details of the project's inputs follow:

1. Project Inputs:

- a. Training Support: At least 6,000 direct employees are to be trained or retrained during the life of the project. Each BPD develops its in-house training capability to provide a training program that provides all operating personnel with periodic necessary training. Specific training programs for unit and BPD officials is being developed. The GOI provides funds for the development of training facilities at the BPDs and personnel training costs. AID funds local training costs and study trips by selected project officials to visit other Asian countries to observe comparable rural credit programs applicable to the Indonesian program.
- b. Technical Assistance: Technical assistance consultants work closely with provincial development banks to help develop their management, supervisory and inspection capabilities. Technical assistance

includes resident and short-term specialists to work with the provincial banks to create and improve management information systems, savings programs, and training efforts. The initial tasks are to assist in the review of accounting procedures in use, consolidate the financial position of each of the sub-systems assisted, re-classify participating units and conduct an initial assessment of computer requirements to support management information system development. Later, the capacity of individual units and the BPD to monitor larger types of loans will be stressed. The bulk of technical assistance is provided through an institutional contract. The contract finances resident technical advisors at each province and has forty person months of special short-term assistance.

- c. Commodities: USAID's contribution includes procurement of vehicles plus limited office equipment, and computer equipment to support provincial programs and BANGDA's project management. The GOI's contribution consists of buildings and office equipment required to establish units and conduct larger training programs. Vehicles support supervisors/auditors and thus allow a greater number of supervisory visits. The BPD's may establish revolving funds, using AID money, to fund motorcycles for unit loan officers to establish village posts based on BPD procurement or employee hire/purchase programs. Computer equipment for the management information and accounting systems will be provided by AID in keeping with overall BPD needs and systems used in other provinces. AID financed miscellaneous equipment including training equipment will be determined by each BPD as they begin a training program and identify equipment needs.
- d. Funds for System Capitalization: System expansion relates to financial performance and developing management capacity at the BPD and unit level. Capitalization flows are based on current Ministry of Finance procedures or on AID advances and direct reimbursement/liquidation as set forth in Project Implementation Letters. Additional loan expansion is expected to come from savings, the individual unit's equity accounts less a reserve for potential losses and normal interbank facilities at competitive rates.

2. Project Outputs:

The following project outputs are necessary to achieve the end of project status:

- a. Self sustaining BPD Training Capability. USAID is helping the BPDs to:
1. Write annual RFI training plans including training objectives, budgeting, and manpower scheduling;
 2. Develop job descriptions and performance requirements for loan officers, unit supervisors, bookkeepers, and cashiers;
 3. Design and implement standard courses for the above positions using training methods that rely on simulations, exercises, and case studies;
 4. Develop an apprentice program for operational personnel;
 5. Conduct periodic training needs analysis;
 6. Evaluate the impact of training courses on job performance;
 7. Develop specialized courses to support a small industry lending program.

The above objectives are approached through a structured training program based on methodology found effective and refined for variations in each province. Both the content of training curricula and scheduling of RFI and BPD personnel is scheduled to be developed by the BPD and technical advisors early in the project.

- b. Improved auditing, inspection and supervision. The project is strengthening supervision and auditing by assisting the BPDs to address the personnel and reorganization requirements related to a major expansion of lending and savings.
- c. Established efficient system of savings. This includes a stronger emphasis on voluntary savings; interest rates sufficient to attract savings; allowing posts to accept savings from both borrowers and non-borrowers; providing mechanisms to safeguard savings deposits; self-sustaining costing structure.
- d. Strengthened operational and accounting procedures for each system. Over the life of the project the BPD and consultant will build on existing procedures to design, implement and refine a more uniform accounting system in each province.

- e. Management Information Systems (MIS). Existing management information systems are to be refined and upgraded as management capacity develops and specific information needs are identified. The BPDs work to further develop a simple management information system that will:
1. Track operational performance of each unit in terms of loan performance, loan delinquencies and agings, equity growth, loans outstanding, number of borrowers, number of village posts, monthly loan circulation, total savings, expenses and income;
 2. Consolidate the above to help the BPD set realistic credit and growth ceilings for each unit;
 3. Identify and prevent malfeasance;
 4. Produce reports on a monthly, quarterly, and semi-annual basis;
 5. Maintain centralized consolidated financial statements regarding overall sources and applications of project funds;

Project Participants

Ministry of Home Affairs: Home Affairs agreed to assign a Project Manager and one assistant to a full time section in its Directorate General of Regional Development (BANGDA) covering only rural credit. BANGDA is the main project counterpart, helping to coordinate the inputs of the various project participants. BANGDA is to:

1. Provide GOI contributions to the training and equipment budgets;
2. Monitor overall project implementation and system expansion;
3. Review requests forwarded to the Ministry of Finance;
4. Coordinate the host country contribution from other GOI participants; and
5. Relate FID experience to other provinces for possible replication.

Team Pembina Pembangunan Kredit Pedesaan (National Steering Committee - FID) is a working group formed under the Ministry of Finance to monitor overall rural credit policy in Indonesia. It monitors the overall policy content of this

project and consists of senior officials of the Ministry of Home Affairs, the Central Bank, Ministry of Finance, and BAPPENAS. The Board is supposed to meet at least yearly, immediately after a regular evaluation, to review yearly financial results and concur with and facilitate the project changes needed. The Bank Indonesia participates in the project by participation on the Badan Pembinaan Pembangunan Kredit Pedesaan and also via their Bank Inspection Division which has oversight responsibility for overall BPD operations.

Bank Pembangunan Daerah (Provincial Development Bank): The BPDs are the daily operational counterparts for this project. Each BPD is to strengthen its staff to inspect and develop the local credit systems under its authority. Additional staff for implementation, monitoring and supervision are to be provided. The BPD is the prime counterpart for formulating unit expansion requests, procedural changes, and the size, content and phasing of the training program. The BPDs in turn are monitored by the provincial Badan Pembinaan consisting of various TK I administrative bodies such as BAPPEDA, the governor's office, Koperasi, and the BPD itself. Exact Badan membership varies in each province.

Provinces eligible for Phase I support are: West Sumatera, West Java, Central Java, East Java, Bali, West Nusa Tenggara, and South Kalimantan.

STATEMENT OF EVALUATION ACTIVITIES:

The evaluation is to be performed in two parts, and necessarily by two sub-teams. One revolves around the economic impact of the Project on the end-users (the sub-borrowers), and the other relates to institutional impact.

1. Evaluation of Project Economic Impact. An appropriate survey format will be designed by the team leader. Surveys will be required for the FID project provinces of West Sumatera, West Java, Central Java and East Java, and will need to cover representative samples of RFIS, their customers and potential project participants.

In addition to answering general questions as noted in II A, B, C, D and E, the study needs to discuss the following topics:

A. Community level impact:

- (i) The local and regional environment of communities serviced by RFIS and the range and uses of financial services available.
- (ii) Development progress in the communities as a result of the Project.

B. Borrower and saver levels:

- (iii) A general profile of RFI customers: education, marital status, sex, age, and domicile.
- (iv) Economic sector and loan uses of RFI borrowers.
- (v) RFI customers changes in income, employment, and quality of life.

As will be shown in VI Evaluation Schedule, the impact study is to be broken into appropriate phases which will require the following staffing:

- Team leader	:	11 person weeks
- Rural Development Expert	:	8 person weeks
- Supervisors (4 persons)	:	40 person weeks
- Secretary	:	11 person weeks

This is to be undertaken for a 11 week period beginning o/a May 30, 1990.

2. Institutional Impact Study. The study of project impact of the financial institutions and project validity with respect to the project goals will be covered during an eight week period by two consultants working together: one local and one foreign. Much of the quantitative data needed for this study will be supplied from the management information system set up in the provinces.

The basic task of the evaluation team will be to measure and assess progress toward attaining the EOPS benchmarks as outlined in the the Project Paper, Amendment No. 1 and 2, grant and loan agreements and their amendments, Subsidiary Loan Agreements, T/A contract, and quarterly T/A reports. Reference will also be made to the results of evaluation for Phase II (BRI), GOI planning documents, GOI rural banking deregulation including PAKTO 27 and PAKMAR 25, the USAID/Indonesia CDSS, policy dialogue agenda and various other implementation documentation to be identified and supplied by USAID/PSD staff. The evaluation will focus on all components of project activities initiated under the PP covering geographic areas of West Sumatera, West Java and Central Java, and PP Amendment No. 2 dated July 14, 1987 expanding the coverage to East Java province.

In addition to addressing both purpose and output level objectives of the project as illustrated in the PP logframe, the evaluation should specifically discuss the following two issues:

- a. Technical Assistance and Project Management. In assessing the output level objectives, the evaluation team will simultaneously measure the effectiveness of the completed and ongoing T/A contracts in achieving their goals. At the

same time, it will discuss the appropriateness and effectiveness of BANGDA and the GOI project manager. Evaluation of both T/A and the GOI Project Management teams will include formulation of changes to make TA and Project Management within BANGDA more effective and responsive in order to achieve a more successful completion of the Project. Recommendations should also refer to project management alternatives for possible post-project activities.

- b. FID Activities Beyond the PACD. Is future Mission involvement in this sector appropriate? If so, what are the evaluation team's specific recommendations? Is an amendment/extension of the project called for? What minor or major modifications would be needed? Is a new activity in this area worthwhile, and what should be the specific areas of focus?

3. Information Component. Subject to the availability of central-funding, an information component will be included with evaluation activities. This will entail one month of effort by an additional expatriate consultant. During this one-month period, the consultant will perform work which will expand the usefulness of the evaluation, producing a document which can be appended to the Final Evaluation Report and which can be distributed for possible use by other Missions. Both phases of the FID Project will be covered during the one month period.

It is anticipated that GEMINI Project central funding will be made available to carry out this phase of evaluation activities. Project funding is not available for this component and in the event that central funding cannot be utilized, this information component will not be carried out.

The information component will treat issues of interest to a wider audience, including:

- The impact of financial services compared with alternative direct and indirect assistance strategies;
- Systems for "scaling-up" the reach of microenterprise finance institutions; and
- The role of policy change in fostering the growth of institutions and the role of project assistance in influencing the regulatory environment.

Included in the information component will be the following:

- a. Detailed descriptions of the various programs. These would include detailed institutional portraits, credit and savings methodologies, and comparative analyses of such characteristics as reach, clientele, etc.

- b. Analysis of the relationship between the various institutions and the overall financial system in Indonesia and the particular regulatory framework in which they operate. Particular attention should be paid to changes in the regulatory environment over the past five years and the impact these changes have had on the roles of the various systems.
- c. Analysis of the particular features of the market for financial services in Indonesia, the demand for various sorts of services and the range of institutions available to meet these demands.

EVALUATION TEAM QUALIFICATIONS AND RESPONSIBILITIES:

1. Sub-Team: Economic (customers') Impact.

The end-users impact study will be undertaken by a 6-person team consisting of a mix of expatriate and local experts. In addition, the team will be supplemented by representatives of BANGDA, MOF and USAID, a group of interviewer from BPD and other provincial agencies.

- a. Senior Socio-Economist/Team leader (11 weeks). The incumbent will coordinate and manage the evaluation and provide technical expertise in the area of rural economic development issues. He or she will have primary responsibility for ensuring the timely preparation of the analysis as required by the SOW and for the preparation and submission of the interim, draft and final evaluation reports.

The person should hold a PhD in development economics, management, or other related social sciences, or a masters degree with a minimum 8 years experience in capacities such as rural development project management and analytical work in a developing country setting. The incumbent will have had previous experiences as leader or senior member of an evaluation team, and should be fully familiar with issues surrounding rural credit. He or she must also have had previous experience in Indonesia, preferably with USAID and should have basic Bahasa Indonesia capability.

- b. Rural Development Specialist (8 weeks). The expatriate senior rural development specialist should be a PhD trained in an appropriate area of development economics (i.e., micro-enterprise, rural banking, informal economics, etc.) with experience in research and/or project management in developing country, and if possible, in Indonesia. He or she will also have

had experience in similar evaluation exercises, and be familiar with rural finance.

- c. Research Supervisors (4) (10 weeks each). These four Indonesian consultants must hold master's degree in the field of economics, applied statistics, management, accounting, or other related statistics. Their other designation may either be agricultural economist, financial analyst, or rural development specialist. Each will be responsible for the implementation of the research in the four provinces. Under the coordination and supervision of the Team Leader, they will select BPD and other provincial agency staff, brief these enumerators on the methodology and design of the survey, and survey techniques. Each supervisor will be involved in the data gathering and will ensure that questionnaires are properly completed. The incumbents must have research or project management experience in the area of small or microenterprise development, and if possible, with a focus on rural finance. They must be able to communicate well in English both verbally and in writing.

It will be the responsibility of the contractor to interview, select and hire the Indonesian consultants and other local staff which may be required. The contractor will also discuss with USAID, BANGDA and BPDs the number and qualification of supporting staff required.

2. Sub Team: Institutional Impact Study

- a. Team Leader/Institutional Management Specialist (IMS). The primary responsibility of the IMS will be to execute, coordinate and manage the evaluation and to provide technical expertise in the area of institutional development and management. He or she will have primary responsibility for ensuring the timely preparation of the analysis as required by the SOW and for the preparation and submission of the interim, draft and final evaluation reports. He or she will provide key inputs on the policy and institutional development issues being assessed in the evaluation.

The IMS should hold a PhD in economics, management, or other related social science or a master degree with a minimum eight years experience in capacities such as rural development project management and analytical work in a developing country setting.

The incumbent will have had previous experience as leader or senior member of an evaluation team, and should be fully familiar with the issues surrounding rural credit. He or she must also have had previous experience in Indonesia, preferably with USAID and should have basic Bahasa Indonesia language capability.

- b. Rural Credit Specialist. This local Indonesian consultant should hold a Ph.D or at least a master's degree in economics, accountancy or other social sciences with experience in rural development projects with particular emphasis on credit input. This person will be responsible to the team leader in carrying out the evaluation with primary responsibility for the Unit Desa Staff training and operational undertakings. This individual must be able to communicate well in English both verbally and in writing.
3. Information Component. The information component advisor will have responsibility for producing the information component as specified in the scope of work, and for the preparation and submission of the interim, draft and final reports. This individual's academic and professional qualifications should be similar to those required of the team leader/institutional management specialist of the Institutional Impact Sub-team. The individual will have had similar prior experience in preparing analytical reporting documents and should be fully familiar with the major issues surrounding rural credit in developing countries. Prior Indonesia experience would be helpful. Basic Bahasa Indonesia capability is required.

EVALUATION SCHEDULE

USAID anticipate that the Customer Economic Impact and Institutional Impact evaluation teams will respectively require 66 and 48 working days to complete the evaluation tasks outlined above. The two team leaders may spend up to 3 days in Washington discussing the requirements of this scope of work with A.I.D. officials (PRE and S&T Bureaus), GEMINI personnel, World Bank staff and others. A six day work week is authorized. The tentative schedule of activities is as follow .

1. Customer Economic Impact Team

Week #1 and #2 Evaluation team (Team Leader) arrives in Jakarta and meets with USAID, BANGDA, MOF, T/A team staff.

Finalize hiring local consultants.

Formulate, review, and finalize evaluation methodology and design.

- Arrangements made for FID provinces to submit nomination of field personnel (surveyors).
- Week #3 Rural Development Specialist arrives in Indonesia.
Continuation of meetings with staff of USAID, BANGDA and MOF.
Select the BPD and other provincial staff who would carry out the survey data.
- Week #4 Training of field personnel (surveyors).
Field testing of forms.
- Week #5, #6, #7 Data collection and checking of data in the field. Each province should use three teams.
- Week #8 and #9 Analysis of Data.
Collection of missing information.
Preparation of draft report.
Oral presentation to USAID and GOI.
- Week #10 and #11 Preparation of the final report.
2. Institutional Impact
- Week #1 Evaluation team (Team Leader) arrives in country and meets with USAID, BANGDA and MOF staff TA Team and other appropriate agencies.
Finalize hiring of local consultant.
Formulate, review, and finalize evaluation methodology.
- Week #2 Continuation of BANGDA and USAID meetings. Arrangements made to travel to provinces during middle of Week #2.
- Week #3 & #4 Review work at BPD, BAPPEDA and SETWILDA offices, BPD branches and RFIs.
- Week #5 Continue review at regional offices, BPD branches and RFIs.
- Week #6 Further reviews in Jakarta, and meetings with BANGDA and TA Teams.

- Week #7 Identification of policy level restrictions and preparation of first draft of evaluation report.
- Week #8 Seminars at USAID and BANGDA presenting findings and recommendations. After USAID and BANGDA comments, submission of final evaluation report.

REPORTING REQUIREMENTS

Both evaluation teams will be responsible for preparing a final report addressing the issues identified with subsequent recommendations to USAID and the GOI. This report will include recommendations for revisions in the Project design to bring Project objectives and inputs into alignment within the existing time frame for the project. This document will also provide recommendations for future USAID involvement, if any, in the RFI Systems. The final evaluation report will be prepared in English by the evaluation team while in country and delivered to USAID in draft with enough time to incorporate mission comments in the final version.

APPENDIX B

DATA FROM INDIVIDUAL LOAN LEDGER CARDS

The data analyzed in tabular form in this appendix were collected from a sample of 659 individual loan ledgers drawn at random from the 13 FID RFIs visited during field work.

Table B-1
Averages for Individual RFI's, by Region
Loan Amount, Interest Collected, Term, Balance Outstanding
Savings Balance, and Sample Size

RFI	AMOUNT OF LOAN	INTEREST COLLECTED	TERM	BALANCE OUTSTAND.	SAVINGS	SAMPLE SIZE
Bunga Tanjung	316,771	31,677	180	132,615	143,286	48
Taeh Baruh	303,750	38,562	360	210,500	96,570	48
Labuh Gunung	369,800	13,911	306	241,832	104,719	40
W. SUMATRA	327,772	28,882	281	192,226	115,432	136
Blabahtuh	354,255	40,472	397	275,619	57,086	47
Gelgel	143,617	11,356	312	93,759	14,997	47
BALI	249,936	25,914	355	184,689	36,041	94
Lakarsantri	77,000	6,905	85	53,710	13,180	50
Kamugoro	65,385	6,583	96	50,692	11,331	52
Socha	83,300	13,905	165	58,796	14,530	50
EAST JAVA	75,099	9,107	115	54,351	12,991	152
Kerang Tengah	75,000	4,200	84	45,280	28,034	50
Wirosari	101,800	21,680	151	34,080	202	50
CENT. JAVA	88,400	12,940	117	39,680	14,118	100
Dayeukolot	964,500	58,272	449	742,850	164,322	80
Paseh	595,100	79,241	300	457,928	17,036	50
Cikalongkulon	207,447	26,604	303	137,404	3,572	47
WEST JAVA	659,124	55,787	368	404,595	80,031	177

Table B-2
Analysis of Past Due Loans, by RFI and Province
(from Random Sample of Individual Ledgers)

RFI	AMOUNT LOAN	INTEREST COLLECTED	PAYS PAST	BALANCE OUTSTAND.	SAVINGS BALANCE	% OF SAMPLE
W. SUMATRA						
Bunga Tanjung	500,000	50,000	18	50,000	128,402	4.1
Tach Baruh	462,500	42,750	94	410,000	55,595	8.3
Labuh Gunung	180,909	12,023	135	132,318	98,008	27.5
BALI						
Blabahtuin	170,000	51,600	206	97,400	7,000	10.6
Gelgel	100,000	12,500	215	28,800	11,122	6.1
EAST JAVA						
Lakarsantri	62,750	6,750	189	35,125	11,450	40.0
Kamigoro	32,875	2,500	159	20,321	6,536	26.9
Socha	59,500	13,450	162	24,200	13,800	20.0
CENTRAL JAVA						
Kerang Tengah	86,818	2,364	179	85,659	27,600	44.0
Wirosari	153,333	42,000	100	76,333	105	6.0
WEST JAVA						
Dayekolot	192,857	24,986	133	97,429	52,650	8.8
Pasch	456,636	114,715	139	381,845	4,941	22.0
Cikalongkulon	179,167	43,668	280	108,917	3,283	12.8

Table B-3
Analysis of Past Due Loans, by RFI and Province
LOANS MORE THAN 60 DAYS PAST DUE
 (from Random Sample of Individual Ledgers)

RFI	AMOUNT LOAN	INTEREST COLLECTED	PAYS PAST	BALANCE OUTSTAND.	SAVINGS BALANCE	% OF SAMPLE
W. SUMATRA						
Bunga Tanjung						0.0
Tach Baruh	225,000	40,500	166	197,500	15,950	4.2
Labuh Gunung	134,167	12,667	214	63,417	78,554	15.0
BALI						
Blabahtuh*	162,500	42,000	254	109,250	7,500	8.5
Gelgel*	100,000	12,500	215	28,800	11,122	6.4
EAST JAVA						
Lakarsantri	58,571	5,857	255	36,607	11,036	28.0
Kamigoro	34,444	2,778	226	17,278	6,333	17.3
Socha	64,167	11,417	240	30,333	5,833	12.0
CENTRAL JAVA						
Kerang Tengah	93,158	2,474	205	92,605	27,447	38.0
Wirosari	150,000	45,000	242	126,000	188	2.0
WEST JAVA						
Dayekolot*	230,000	32,880	171	120,600	41,360	6.3
Pasoh	386,667	89,355	229	322,717	4,458	12.0
Cikalongkulon*	205,000	51,400	333	125,700	125,700	10.6

* - Deposit Mobilizing Institutions.

Of particular interest in the above table is the poor performance of two of the specialized credit institutions in East and Central Java, (28.0% and 38.0% of loans more than 60 days past

due), compared with the generally high level of performance of the deposit mobilizing institutions of Bali and West Java, (range 6.3% to 10.6% of loans more than 60 days past due.) The exceptionally good performance of the BKK at Wirosari reflects the personal achievement of a strong, intelligent manager.

Table B-4
Individual Loan Ledger Data Analyzed by Gender

	WEST SUMATRA	WEST JAVA	CENTRAL JAVA	EAST JAVA	BALI*	ALL REGIONS
Average Loan	327,772	659,124	88,400	75,099	248,936	238,304
Male	292,364	761,176	106,630	79,271	234,568	361,192
Female	373,983	524,653	72,870	73,173	338,462	250,944
Avg. Balance	192,226	501,595	39,680	54,351	184,689	156,665
Male	201,004	614,923	51,359	60,250	169,832	274,605
Female	180,771	351,305	29,731	51,628	277,262	154,101
Savings	115,432	80,031	14,118	12,991	36,041	55,644
Male	90,651	73,463	12,448	11,699	29,805	50,909
Female	147,774	92,260	15,540	13,588	74,901	61,548
	Ratio: Balance Outstanding:Loan Amount					
Male	68.8%	78.4%	48.2%	76.0%	72.4%	71.4%
Female	48.3%	75.9%	40.8%	70.6%	81.9%	59.6%
	Ratio: Savings Balance:Loan Amount					
Male	31.0	9.7	11.7	14.8	12.7	14.1
Female	39.5	17.6	21.3	18.6	22.1	24.5

*For cultural reasons, loan analysis based on gender is relatively meaningless for Bali.

Note: In all original project areas the ratio of loan balance outstanding to original loan amount is significantly lower for women. The figures for Bali are relatively meaningless since most loan documents are signed by the husband, even if the woman is the actual borrower.

Note: Women maintain higher savings balances relative to loan amounts in all areas.

These ratios suggest the women among the FID-I clientele should be considered preferred borrowers. Not only are they better payers, they are also less leveraged.

Table B-5
Characteristics of FID- I Borrowers:
Impact Study Data Compared with Data from Ledger Cards

	West Sumatra	West Java (BKPD)	West Java (LPK)	Central Java	East Java	All Areas
<u>Impact Study</u>						
Sample Size	82	192	464	143	143	977
Average Age	46	40	40	41	41	41
% Male	41	59	45	28	28	47
% Female	59	41	55	72	72	53
	West Sumatra	West Java	Central Java	East Java	Bali	All Areas
<u>Loan Ledgers</u>						
Sample Size	136	177	100	152	94	659
Average Size	41	37	40	32	37	37
% Male	57	58	46	32	86	54
% Female	43	42	54	68	14	46

APPENDIX C

Table 2-1
Nominal and Effective Interest Rates in the BKK System
 (As at Start of Project)

Type of Loan	Payback Period	Monthly Nominal Rate	Effective Monthly Rate ¹	Compounded Annual Rate ²
Harrian	22 days	4.8	10.8	342.3
Pasaran	60 days	4.0	6.9	222.7
Mingguan	12 weeks	3.6	6.9	222.7
Bulanan	3 months	3.3	5.3	85.8
Lapanan	175 days	3.4	5.6	92.3
Musiman	6 months	2.0	2.2	29.8

¹Calculation assumes interest and commitment fee repaid before savings and principal. See Richard H. Patten and Jay K. Rosengard, Table IV-2, for the formula whereby this effective rate is calculated.

²Maximum effective rate theoretically available given the nominal interest rate structure.

Source: Annex D, page 8, *Project Paper*

GEMINI PUBLICATION SERIES

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13. "Dynamics of Microenterprises: Research Priorities and Research Plan," Carl Liedholm and Donald C. Mead. GEMINI Working Paper No. 13. August 1990. [not for general circulation]

14. "Review of Year One Activities (October 1, 1989 to September 30, 1990) and Year Two Work Plan (October 1 to November 30, 1990)." GEMINI Working Paper No. 14. January 1991. [not for general circulation]

GEMINI Technical Reports:

1. "Jamaica Microenterprise Development Project: Technical, Administrative, Economic, and Financial Analyses." Paul Guenette, Surendra K. Gupta, Katherine Stearns, and James Boomgard. GEMINI Technical Report No. 1. June 1990. [not for general circulation]
2. "Bangladesh Women's Enterprise Development Project: PID Excerpts and Background Papers." Shari Berenbach, Katherine Stearns, Syed M. Hashemi. GEMINI Technical Report No. 2. October 1990. \$13.00
3. "Maroc: Conception d'une Enquête pour une Etude du Secteur Informel." Eric R. Nelson and Housni El Ghazi. GEMINI Technical Report No. 3. November 1990. \$12.50
4. "Small Enterprise Assistance Project II in the Eastern Caribbean: Project Paper." James Cotter, Bruce Tippet, and Danielle Heinen. GEMINI Technical Report No. 4. October 1990. [not for general circulation]
5. "Technical Assessment: Rural Small-Scale Enterprise Pilot Credit Activity in Egypt." John W. Gardner and Jack E. Proctor. GEMINI Technical Report No. 5. October 1990. \$4.00
6. "Developing Financial Services for Microenterprises: An Evaluation of USAID Assistance to the BRI Unit Desa System in Indonesia." James J. Boomgard and Kenneth J. Angell. GEMINI Technical Report No. 6. October 1990. \$9.00
7. "A Review of the Indigenous Small Scale Enterprises Sector in Swaziland." David A. Schrier. GEMINI Technical Report No. 7. [not for general circulation]
8. "Ecuador Micro-enterprise Sector Assessment: Summary Report." John H. Magill and Donald A. Swanson. GEMINI Technical Report No. 8. December 1990.
9. "Ecuador Micro-Enterprise Sector Assessment: Financial Markets and the Micro- and Small-scale Enterprise Sector." Richard Meyer, John Porges, Martha Rose, and Jean Gilson. GEMINI Technical Report No. 9. December 1990.
10. "Ecuador Micro-Enterprise Sector Assessment: Policy Framework." Bruce H. Herrick, Gustavo A. Marquez, and Joseph F. Burke. GEMINI Technical Report No. 10. December 1990.
11. "Ecuador Micro-enterprise Sector Assessment: Institutional Analysis." Peter H. Fraser, Arelis Gomez Alfonso, Miguel A. Rivarola, Donald A. Swanson, and Fernando Cruz-Villalba. GEMINI Technical Report No. 11. December 1990.
12. "Ecuador Micro-Enterprise Sector Assessment: Key Characteristics of the Micro-enterprise Sector." John H. Magill, Robert Blaney, Joseph F. Burke, Rae Blumberg, and Jennifer Santer. GEMINI Technical Report No. 12. December 1990.

13. "A Monitoring and Evaluation System for Peace Corps' Small Business Development Program." David M. Callihan. GEMINI Technical Report No. 13. [not available for general circulation]
14. "Small-Scale Enterprises in Lesotho: Summary of a Country-Wide Survey." Yacob Fisseha. GEMINI Technical Report No. 14. February 1991. \$6.40
15. "An Evaluation of the Institutional Aspects of FID-I in Indonesia." John F. Gadway, Tantri M. H. Gadway, and Jacob Sardi. GEMINI Technical Report No. 15. March 1991. \$8.80.

Special Publications:

1. "Training Resources for Small Enterprise Development." Small Enterprise Education and Promotion Network. Special Publication No. 1. 1990. \$9.00
2. "Financial Management of Micro-Credit Programs: A Guidebook for NGOs," Robert Peck Christen. ACCION International. Special Publication No. 2. 1990. \$19.00

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