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Mobilizing Savings and Rural Finance

The A.I.D. Experience

A.I.D. Science and Technology in Development Series

Agency for International Development

Mobilizing Savings and Rural Finance

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Acronyms

A.I.D.	Agency for International Development (refers to the overall organization)
BANADESA	Banco Nacional de Desarrollo Agropecuario
BANCOOP	Banco Nacional para las Cooperativas (Peru)
BCEAO	Banque Centrale des Etats de L'Afrique de L'Ouest (Niger)
BDRN	Banque de Developpement de la Republique du Niger
BKB	Bangladesh Krishi Bank
CNCA	Caisse Nationale de Credit Agricole (Niger)
COLAC	Confederación Latino Americana de Cooperativa
CUNA	U.S. Credit Union Federation
EARS	Experimental Approaches to Rural Savings project
FACACH	Federación de Asociaciones Cooperativas de Ahorro y Crdito de Honduras
FEDOCOOP	Federación Dominicana de Cooperativas de Ahorro, Crédito y Servicios Multiples
GDP	Gross Domestic Product (similar to Gross National Product)
GM	Groupement Mutualiste Villageois (Niger)
IMF	International Monetary Fund
NCB	Nationalized commercial bank (Bangladesh)
PP	Productivity Project (Niger)
RFEP	Rural Finance Experimental Project
RFI	Rural financial institution
UNC	Union Nationale de Cooperatives (Niger)
UNCC	Union Nigerienne de Credit et de Cooperation (Niger)
USAID	U.S. Agency for International Development (refers to an A.I.D. field Mission)

Foreword

This book is one of a series that addresses the role of science and technology in development—a series started by my predecessor, Dr. Nyle C. Brady, to whom this edition is dedicated. The field research on which the book is based was sponsored by the U.S. Agency for International Development (A.I.D.) and carried out by the Ohio State University. The authors treat a subject which has been one of the major bottlenecks to broad based and sustainable economic growth in the developing countries.

Mobilizing Savings and Rural Finance: The A.I.D. Experience examines a cross section of rural finance studies and programs conducted in recent years in Africa, Asia and Latin America. It is a constructive review of the A.I.D. experience that frankly assesses progress, problems, and lessons for the future.

It is important to publish books such as this one, despite the great insights we have gained over the years in this area, because the finance sector remains one of the most elusive and underdeveloped in developing countries. With a global push to market economies and a more robust role for the private sector, the demand for accessible finance is stronger now than ever in low income countries. This book examines important issues in rural finance, introduces innovative solutions, and highlights the Ohio State University's important and pioneering work in this area.

We are pleased to be associated with this work and remain committed to exploring innovative approaches to meeting the challenge of financing development in developing countries. This book describes important policy and institution building approaches that work. They will be seen as building blocks for future advances in this field.

Richard E. Bissell
Assistant Administrator
Bureau for Research and Development
Agency for International Development
Washington, D.C.

X

Introduction

Thirty years ago, access to credit was thought to be a critical barrier to development in Third World countries. However, initial attempts by donors to make credit available to poor farmers through subsidized programs met with only marginal success. Of the few small farmers who did apply for loans, fewer received them. A high percentage of loans made to this group was not repaid, thus threatening the viability of the financial institutions involved. Targeted credit programs did not lead to adoption of new technologies, nor to increased productivity.

Since that time, A.I.D. has supported research that has greatly affected the way we view the impact of rural financial market policies on economic development. From the 1960s, through the landmark A.I.D. Spring Review on Credit of 1973, to the present, this body of research, combined with A.I.D.'s commitment to bettering the lives of the rural poor, has made A.I.D. a leader in testing rural financial theory against practice.

This book combines the experience from A.I.D.'s long-term involvement in rural financial markets development with knowledge gained from research conducted in more than seven countries under the Experimental Approaches to Rural Savings (EARS) project. EARS activities have provided further insights into the creation of vigorous, self-sufficient rural financial markets. It has shown which policy changes should be encouraged, and conditions imposed, to create a macroeconomic setting that is conducive to the mobilization of savings and creation of a viable self-sustaining financial service delivery system.

The research reported on and summarized in this book contributed directly to the major shift in credit and savings policy and project design followed now by most donors. The earlier view was that subsidized and abundant credit from external sources was essential for rural development. Current wisdom recognizes that viable rural financial systems—necessary for sustainable rural economic growth—depend on locally generated savings and market-determined rates of interest.

We are indebted to the committed researchers of the Ohio State University (OSU). Professors Dale Adams, Richard Meyer, Claudio Gonzalez-Vega, Douglas Graham, and Carlos Cuevas, in particular, have guided this research. These individuals, with the OSU Rural Finance Working Group, have worked in tandem with enlightened policy makers and risk-taking producers to promote sustainable approaches to rural finance. As a result of their efforts, a broader range of developing countries' rural sector savings and credit needs can be met and their overall financial systems improved. Indeed, the OSU group received the American Agricultural Economics Association's award for Distinguished Policy Contribution based on this work. We commend Avrom Bendavid-Val and Jeanne Downing for their thoughtful preparation of this manuscript for the A.I.D. Science and Technology in Development series. They were assisted by many others in this endeavor and their acknowledgment has been included in this volume.

We dedicate this book to Dr. Nyle C. Brady, who, while he was A.I.D.'s Senior Assistant Administrator for Science and Technology, launched the Science and Technology Book series to advance the application of A.I.D.'s scientific research to development.

Eric Chetwynd, Jr., Director
Office of Economic and Institutional Development
Bureau for Research and Development
Agency for International Development
Washington, D.C.

Acknowledgments

Our mission in writing this book was to put forward basic principles of rural finance that have emerged from A.I.D. work over the last two decades and to illustrate these principles through recent field experiences from A.I.D.'s Experimental Approaches to Rural Savings (EARS) project in the Office of Economic and Institutional Development in the Bureau for Research and Development (formerly, Science and Technology).

It was a mission we looked forward to because we were convinced that developing countries would have to rely more and more on locally mobilized financial resources. It seemed to us that the most important lesson to come out of A.I.D. research on rural finance was that a properly working financial system efficiently recycles capital generated by production surpluses into further development activity. The principles to be presented in the book offer important insights for achieving such a properly working financial system.

This book is aimed at a wide audience of development practitioners, many of whom are not necessarily comfortable with financial concepts and jargon. We share the belief that if this audience is to enjoy the book and make use of the ideas it comains, we had first to accomplish several things. The subject of finance had to be demystified and simplified; the role of finance in every development endeavor, reducing or increasing its benefits, had to be demonstrated; and the message had to be conveyed that financial issues should and can be the concern of any development practitioner, not just of financial experts. That is what we tried to accomplish. And while only we can take blame for any degree of failure to reach these goals, we had a great deal of help and encouragement in the effort to achieve them.

The Rural Finance Working Group and staff at the Ohio State University provided documentation, helped with graphic materials, reviewed the draft manuscript, and, most importantly, explained in detail what happened in a variety of field experiments, commented on our proposed approach, and

answered specific questions that cropped up during the writing. Our deep thanks to Dick Meyer. Dale Adams, Carlos Cuevas, Douglas Graham, Claudio Gonzales-Vega, and Barbara Lee at the Ohio State University.

A number of people outside A.I.D. commented on the manuscript. Among these were Azlina Ahmad, Charles Blankstein, Leah Bendavid-Val, Robert Charlich, David Cole, Donald Dembowski, John Gadway, Kathy Parker, Robert Vogel, and the staff at Metrotec, Inc., to all of whom we express our gratitude.

Within A.I.D. we had the pleasure of working with people who were not only experienced, well-informed, and imaginative about the subject of finance, but who were also articulate, committed, and enthusiastic about it. Guidance and encouragement came from Sandra Frydman, former Project Officer for EARS. Office Director Eric Chetwynd and former Agency Director for Human Resources Chris Russell also never stinted when guidance, assistance, or clearance were needed. Thomas Tifft, the A.I.D. officer who headed the evaluation team for EARS, spent a great deal of time advising us during the writing, and later, in reviewing the manuscript. Marcia Packer provided extensive editorial help. Our special thanks to Melissa Brinkerhoff, Rural Finance Advisor, for successive iterations of technical review and comment throughout the production of this volume.

Others in A.I.D. who contributed their comments on the draft manuscript include Peter Benedict, Edward Caplan, Roberto Castro, Vincent Cusumano, Antonio Gayoso, John Grayzel, James Norris, Dwight Steen, Jan Van der Veen, and Steve Wingert. Tom Crawford collected and collated the volumes of comment on the original manuscript and converted it into a form that provided efficient guidance for revisions. Clyde McNair, A.I.D. photographer, helped with graphic materials.

This book, and the idea that it had to communicate to a wide audience, were the inspiration of Dr. Nyle C. Brady, at that time A.I.D.'s Senior Assistant Administrator for Science and Technology. He closely tracked development of the book and communicated his sustained interest and encouragement during its preparation. Finally, we are deeply indebted to Dr. Richard E. Bissell, A.I.D. Assistant Administrator for Research and Development, for his keen interest in and understanding of the crucial role that finance plays in the development process.

Avrom Bendavid-Val
Jeanne Downing
Washington, D.C.

1

Innovations in Rural Finance

How can small farmers in developing countries, who have meager savings, increase their production? They need fertilizer, seeds, farm implements, irrigation, and improved farming techniques; yet to obtain these, they need capital. In the past, most donors believed that credit was the answer. If small farmers had access to cheap credit, that could offset the risks of adopting new technologies; with the credit, farmers could buy improved inputs, increase their productivity, and generate their own capital for further investment.

The many subsidized credit projects based on these assumptions, however, have not had the anticipated results. Among small farmers, many did not apply for loans, others applied and did not receive them, and still others received loans and did not repay them. Moreover, a close look at rural financial institutions that have participated in subsidized credit programs often reveals enormous operating costs that include extreme internal inefficiencies and high loan delinquency and default rates.

In the 1960s A.I.D. initiated research efforts to investigate what was then only vague evidence that something was wrong. This ground-breaking research uncovered a complexity of problems associated with subsidized credit programs. In recent years, further research and field demonstration projects have produced a new approach to addressing the financial needs of Third World farmers.

Rural savings mobilization is central to this innovative approach. Credit is viewed as a natural product of intermediation between savers and borrowers, rather than as an input that can be supplied by a donor project. When financial development is allowed to evolve naturally, intermediaries mobilize sav-

ings from households that do not have high-return investments and lend these funds to borrowers who do. Savers benefit from the interest paid on their deposits, borrowers benefit from having access to lending funds, and intermediaries benefit by charging borrowers more than they pay depositors. Subsidized credit programs disrupt this natural process of intermediation, and, in so doing, damage the sustainability of financial institutions.

This chapter explains how and why subsidized credit programs often failed to benefit small farmers and damaged the viability of financial intermediation. It illustrates how savings mobilization better meets the financial needs of rural populations and, at the same time, fosters self-sustaining and viable financial institutions. Finally, it reveals how rural finance projects can promote viable rural financial markets that benefit savers, borrowers, and intermediaries alike.

Subsidized Credit Programs

What are subsidized credit programs? They are programs in which low-cost credit is supplied by an external source, either a donor or government, disbursed by specialized lending institutions, and targeted to certain groups, for certain agricultural uses. In order to assure donors or governments that targeting requirements are met, lending institutions that participate in these programs are required to screen and monitor borrowers and their use of credit.

How and why do subsidized credit programs damage the viability of rural financial institutions (RFIs) and fail to reach small farmers? First, subsidized credit programs make financial institutions dependent on external sources of funding. RFIs that rely on infusions of donor monies for lending funds and for covering operating expenses have little incentive to expend efforts and resources to mobilize their own funds and are not motivated to develop sound banking procedures.

Second, they have difficulty providing lending funds on a reliable and timely basis. External funds tend to flow irregularly, sometimes overwhelming the capacity of rural financial institutions to disburse them, and at other times becoming scarce when farmers need credit most. In recent years, donor funding levels have declined because of policy changes and economic contractions in donor countries. Without mechanisms to mobilize their own funds, many lending institutions that were formerly dependent on external funding sources have had difficulty remaining solvent.

Third, RFIs that disburse subsidized loans often experience high delinquency and default rates. Borrowers tend to view subsidized credit as coming from some external and distant source rather than from their local commu-

nity. As a result, they feel less obliged to repay subsidized loans than those mobilized from local funds.

Fourth, because subsidized credit is not allocated by market forces, but rather is rationed according to targeting criteria, political intrusion is easier. This may entail political appointments of bank managers, mandates to lend to certain individuals or groups as payment for political patronage, and loan forgiveness programs to win popular support or to compensate farmers for policies biased against agriculture. Using the financial system for disbursing political patronage fosters a view of financial institutions as political tools of government. Loan forgiveness programs create expectations on the part of borrowers that if they wait long enough, their loan obligations will be canceled. These political intrusions add to loan recovery problems of rural financial institutions that participate in subsidized credit programs and further jeopardize their viability.

Fifth, the targeting requirements associated with subsidized credit programs have been difficult, if not impossible, to enforce because of the fungibility of funds; that is, because one pool of money can be substituted for another, borrowers can substitute low-cost credit for the funds they normally spend on the activity targeted by the program, and use their freed-up funds for other uses, such as consumption. Furthermore, in rural areas where populations are dispersed, it is difficult to monitor the use of borrowed funds and thereby prevent borrowers from circumventing targeting criteria, particularly when it is often in their interest to do so.

Sixth, rural financial institutions are motivated to circumvent targeting requirements because the screening, monitoring, and documentation required by targeted subsidized credit programs are administratively costly. In many instances, the margin between the interest they must pay for loan funds and the rate they are permitted to charge borrowers does not cover these costs. RFIs forced to lend to small farmers, a risky clientele to serve, will tend to circumvent these targeting requirements by directing loans to larger, more solvent borrowers or by transferring a portion of the transaction costs to borrowers through noninterest fees, or both. RFIs can direct loans to larger borrowers by setting loan size minimums or by establishing collateral requirements that small borrowers usually can not meet. Through multiple small loans to the same individuals, RFIs can mask the fact that, in reality, they are concentrating most of their loans in the hands of a few large borrowers. This tendency is further facilitated by the excess demand for low-cost loans and the greater ability of larger and more influential borrowers to bid for these scarce resources.

When RFIs transfer a portion of their transaction costs to borrowers through noninterest fees, these borrower costs, combined with those incurred from travel expenses and time lost from work in applying for loans, can make

even subsidized loans too costly for small borrowers. As a result, subsidized credit programs are rarely able to reach their intended beneficiaries.

Rural Savings Mobilization

Why is savings mobilization a better source of capital than subsidized credit for meeting the financial needs of small farmers and for improving the viability of rural financial institutions? Subsidized credit programs are frequently justified on the basis that small farmers are too poor to save and need low-cost credit to invest in order to increase their productivity. A.I.D. research has demonstrated that this simply is not true. Not only do small farmers save, in many cases they do not need or want credit. Because of their small profit margins and the risks associated with farming, small farmers are generally reluctant to assume the burden of a loan and prefer to rely on their savings for operating and investment capital. What small farmers most often need and want is a safe repository for their savings that is convenient, allows quick access to funds, and protects the value of their deposits from being eroded by inflation.

RFIs that rely on mobilized savings for their lending funds are motivated to provide depositors with services that meet their needs. In order to attract lending funds from which they can make a profit, RFIs that are unrestricted by regulations will offer depositors interest rates that are sufficiently high to offset the rate of inflation. They will try to provide services and financial instruments tailored to the needs of their potential depositors. They will also be motivated to expand their branch network into potentially profitable, unserved areas, thereby reducing the depositors' transaction costs.

Savings mobilization fosters the viability of rural financial institutions by creating incentives for sound banking practices, providing financial information about prospective borrowers, and generating a dependable source of lending funds. When RFIs are dependent on savings mobilization for survival and cannot rely on donors to bail them out when their lending funds are depleted, they are compelled to increase their profitability. This means adopting sound banking practices that reduce operating costs, improve loan decisions, and intensify loan recovery efforts.

Savings mobilization actually helps RFIs to make sound creditworthiness decisions. Deposit records provide valuable information on the savings history and solvency of potential borrowers. This information reduces the risks, and thus the costs, of lending. Furthermore, savings mobilization results in a continual flow of loan resources, which further improves RFI loan recovery rates, as borrower motivation to repay loans is strongly influenced by a belief in the timely availability of subsequent funds.

Viable Rural Financial Markets

While the benefits of savings mobilization are clearly significant, rural financial markets must have long-term viability to sustain those benefits. What makes rural financial markets, composed of savers, borrowers, and intermediaries, viable? First, savers must be confident that their savings will be safe, accessible, and protected against inflation before they will deposit funds in financial institutions. If the political environment is unstable, if the currencies are periodically overvalued, if interest rates are fixed while inflation accelerates, and if rural financial institutions experience regular periods of insolvency, smart savers will not be willing to deposit their savings in RFIs. They will invest in nonfinancial assets instead, such as livestock, jewelry, and grain, or in foreign currencies or goods, investments in which they will have more confidence that their savings will be protected.

Second, small farmers must perceive potentially profitable investment opportunities in order to be willing to borrow. If government policies result in low farmgate prices and productivity, costly or unavailable inputs, and inadequate rural infrastructure, farmers will be unwilling and probably unable to borrow for agricultural investment.

Finally, rural financial institutions must be able to attract deposits with positive real interest rates and charge borrowers a higher interest rate that more than covers their operating costs. If regulations fix interest rates at a low level relative to the inflation rate, not only will RFIs have difficulty mobilizing lending funds (unless noninterest incentives compensate for the income lost), but borrowers will be eager to borrow since the value of loan repayments will decrease over time. As a consequence, RFIs will suffer losses that will increase with time, since their interest revenues will be eroded by inflation while their operating costs increase. To reduce these losses, RFIs will reserve loan funds for larger, less costly loans to financially secure borrowers.

Because rural financial markets function within the context of the broader national economic and political environment, their ability to operate effectively can be seriously threatened by policies, regulations, and political intrusions and instability that deter saving, investing, or intermediating. Thus, a favorable macroeconomic and political environment is critical to the viability of rural financial markets.

How to Achieve Viable Rural Financial Markets

How can rural finance projects foster viable rural financial markets? To begin with, a clear idea is needed of what kinds of reforms will strengthen rural financial markets; then tools to achieve these reforms must be identified.

Reform of major economic policies, regulations, and institutions may all be essential to improve the performance and viability of rural financial markets. For example, policies that support agricultural profitability, prevent government intrusion into the financial system, and discourage currency overvaluation contribute to the solvency of savers, borrowers, and financial intermediaries, and thus to the viability of rural financial markets. Exchange rate policies that overvalue domestic currency and make foreign currency less expensive result in "capital flight" that drains funds from the financial system by producing incentives to invest savings in foreign currency and goods.

The regulatory environment is also critical to the viability of rural financial markets. Flexible interest rate structures and branch banking regulations are needed to foster the profitability and expansion of rural banking. Regulations that limit the size of the market a branch can serve, establish minimum net worth criterion for branches, and require a minimum reserve of capital to open a branch generally make the costs of locating in a rural area relatively greater than those required for locating in an urban area. By ignoring the higher cost of rural banking, these regulations restrict the profitability of RFIs and create urban biases in the network of bank branches.

To ensure rural financial market viability, institutional reforms that promote sound banking policies are needed to strengthen rural financial institutions. First, RFIs must be assured of adequate margins that cover their operating costs. To minimize their risks, they need to diversify their portfolios by lending short-, medium-, and long-term loans to a broad range of economic activities and populations. They must maintain a proper balance of lending fund sources so as not to disrupt the process of local savings mobilization that is so crucial to long-term viability. In addition, RFIs need to establish accounting systems that allow loan officers to monitor loan performance and bank managers to oversee loan decisions. Finally, RFIs need information on potential borrowers in order to make sound creditworthiness decisions.

How can these reforms be achieved? Consistent, continuous, and long-term policy dialogue is needed to persuade policymakers and local bankers of the benefits of reforms. Research and demonstration projects that experiment with savings mobilization and institutional strengthening can provide evidence to support reform efforts, while research collaboration with local officials from both public and private sector financial institutions can build a domestic vested interest in financial reforms. It may be necessary in some cases to have a dialogue with senior government officials who intervene in the financial system to demonstrate the negative impact of some of their decisions and the benefits of more appropriate intervention. Moreover, technical assistance can be provided to help RFIs learn and adopt sound banking policies.

About This Book

This book shares innovations in rural finance that accrue from years of thinking and experimenting within A.I.D. about credit to small farmers. The following chapter traces A.I.D 's experience in the area of agricultural credit and the Agency's endeavors to explore problems and solutions. To illustrate how A.I.D. innovations can be used to address country specific financial problems, the next four chapters focus on A.I.D.'s Experimental Approaches to Rural Savings (EARS) project. These chapters are case studies that explore the lessons learned from the EARS project in Honduras, the Dominican Republic, Bangladesh, and Niger.

The final chapter provides guidelines for rural financial project design, based on A.I.D.'s innovations in rural finance.

2

History of A.I.D. Innovations in Rural Finance

Subsidized Credit Programs in the 1950s and 1960s

A.I.D. has a long history of involvement with agricultural credit programs. In the 1950s and 1960s, the Agency's promotion of these programs was based on the belief that lack of access to credit was a major constraint to increased agricultural production. The early model for supplying agricultural credit was derived from U.S. experience in the 1930s with low-cost government loans that were supervised to control the uses to which the credit was put and administered through specialized financial institutions. particularly cooperatives. As was the case with American farmers during the depression, it was thought that poor farmers in developing countries could afford to borrow only at subsidized rates. Cooperatives that were democratically owned and operated were viewed as the most effective institutional framework for supervising credit and reaching the largest number of farmers.

The International Conference on Agricultural and Cooperative Credit, held in Berkeley, California, in 1952, reviewed the post-World War II experience with cooperative credit programs, affirming its efficacy and calling for increases in donor funding. A.I.D. capital assistance to farm credit increased significantly between 1950 and 1955.

The successes of the Green Revolution in the 1960s spurred an unprecedented expansion in funding for small-farmer credit programs. While improved seeds, fertilizer, irrigation, and farming techniques increased farm yields in a number of regions, the majority of farmers did not benefit from the agricultural improvements of the Green Revolution. Many in A.I.D. con-

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The successes of the Green Revolution in regions such as the Indian Punjab spurred an unprecedented expansion of A.I.D. funding for agricultural credit programs in the 1960s. Ohio State University photo.

cluded that small farmers were reluctant to adopt new technologies because of a lack of capital. Infusions of low-cost credit were needed to induce more widespread adoption and to expand national networks of financial institutions into rural areas to serve small farmers.

The results of the aggressive promotion of loans in the 1960s, however, were generally disappointing. Despite expansion of the institutional credit system, particularly in Latin America and East Asia, there was evidence that many small farmers were still not receiving assistance and that a number of specialized lending institutions were experiencing high default rates and escalating operating costs.

Brazil: Examining Assumptions Underlying Subsidized Credit

In 1964 A.I.D. funded a project in Brazil to explore why subsidized credit programs were not yielding expected results. Among the questions investigated were the following:

Was the expansion of capital assistance to farm credit in the 1960s having a significant impact on agricultural production?

Were credit programs targeted to small farmers increasing their adoption of new technologies?

Were the institutions involved in the disbursement of subsidized credit operating efficiently and effectively?

A contract was signed with Ohio State University, and in 1965 field research was begun in Brazil and several other Latin American countries.

The situation in Brazil was particularly conducive to evaluating the impact of subsidized credit programs. In 1965 policy reforms were implemented to stimulate agricultural production by channeling enormous amounts of publicly financed credit to agriculture. The importance assigned to subdidized credit in Brazil's development strategy provided a testing ground for analyzing the impact of agricultural credit programs on overall agricultural production and on small-farmer production and credit use.

The real value of credit in Brazil almost doubled between 1965 and 1968. However, a 400 percent expansion in the supply of agricultural credit far exceeded the 104 percent growth in agricultural output. This finding raised questions as to how the loan funds directed to agriculture were being used.

Farm-level surveys were conducted in the southern region in 1965-66 and were replicated in 1969-70 in order to gain more insight into the extent to which agricultural credit programs were reaching small farmers. While the number and value of loans obtained by the sample of farmers interviewed had increased dramatically, over 60 percent of the increase in formal credit was absorbed by a small number of large-scale farmers.

Investigations at the commercial banks that were administering much of the subsidized agricultural credit revealed problems. These banks were used to lending to larger farmers. However, the government's new policy forced them to expand their portfolios to include a minimum percentage of small farmers, a more costly and risky clientele to serve. High rates of inflation combined with low interest rates on agricultural loans meant banks actually received interest rates from borrowers that were negative in real terms. Thus, the more loans they made at subsidized rates, the more losses they incurred. Since lending to small borrowers was costly not only because of the risk involved, but also because administering numerous small loans was expensive, RFIs reserved the majority of loan funds for larger borrowers in order to protect their profitability. In many instances, they were able to mask this fact by making a small number of loans to the poor and multiple loans to individual wealthy borrowers. The modest average size and large number of loans concealed the fact that a relatively small group of large-scale farmers were the major beneficiaries of the subsidized credit.

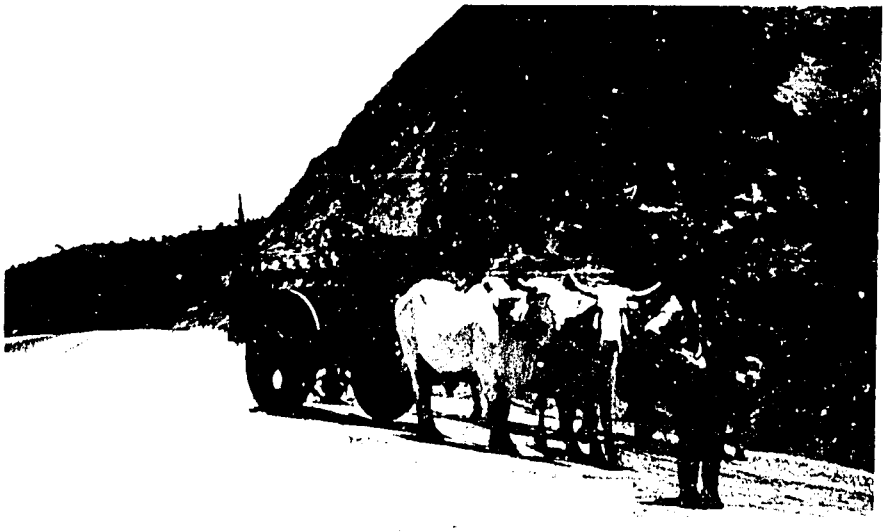
How did those few wealthy farmers use so much credit? Allegations were made that substantial loan funds were diverted to uses other than those stipulated by targeting requirements. Some farmers were reported to have borrowed money several times to clear the same piece of land. Other reports

Researchers in Brazil interview a small farmer to determine whether he received a low-cost loan as a result of the government's agricultural credit program. Ohio State University photo.

suggested that the quantity of fertilizer reportedly financed with subsidized credit in some regions exceeded the amount actually sold.

Further research revealed that the programs implemented to finance modern inputs did encourage the adoption of improved seeds, fertilizer, chemicals, and machinery. However, the changes were uneven. For example, farms too small to support a tractor continued to use established methods of cultivation, while larger farmers in the same region intensified production through increased mechanization. Despite the increased availability of fertilizer, hybrid seeds, and other modern inputs, many small farmers had limited access to credit with which to buy these inputs.

Research in Brazil highlighted the relationship between agricultural production and availability of credit; apparently, credit alone was not the answer to agricultural development. The disparity between the enormous sums of agricultural credit made available and the more modest increases in agricultural output suggested that subsidized credit by itself was both a costly and ineffective strategy for rural development. The final project report suggested that credit was only one of several factors necessary to accelerate production. Availability of inputs, access to markets, adequate infrastructure, and macroeconomic policies and political factors all affected the environment in which the agricultural sector operated.



When farmers travel by oxen-pulled carts, a common form of transportation in many rural regions of Brazil, the transaction cost of time spent away from income-generating activities is often significant. Ohio State University photo.

It was also apparent that, at least in Brazil, targeting loans to particular groups or uses was ineffective. Despite the pressure on banks to lend to small farmers, they vehemently resisted making loans at such low and unprofitable interest rates. Many banks either found ways of limiting loans to small farmers, or increased their returns from these loans by charging noninterest fees.

Perhaps the most important finding of the research in Brazil was that most of the credit that was directed toward agriculture ended up in the hands of a few large farmers, suggesting that subsidized credit programs can actually broaden the economic gap between large and small farmers.

Taiwan and Korea: Examples of Small Farmer Savings Capacity

In the early years of the 1970s, A.I.D. funded research in Taiwan and South Korea in order to analyze the savings capacity in rural areas. While these countries, like Brazil, had undertaken ambitious campaigns to increase agricultural production, their approach to expanding the availability of credit to agriculture was very different. Rather than relying on subsidized credit programs, both countries promoted nationwide savings mobilization. The po-

Large Borrowers Benefit from Brazil's Subsidized Credit Program

Table 1
Percentage Participation in Various Types of Credit in Southern Brazil by Farm Size, 1965 and 1969–70

Farm Operating Unit Size (Hectares)	*Percentage of Farmers with Various Types of Credit*			
	1965		*1969–70*	
	Cash	*Kind*	*Cash*	*Kind*
0–19.9	37	31	47	28
20.0–29.9	44	31	58	38
30.0–49.9	39	31	66	39
50.0–99.9	42	37	71	37
100.0–199.9	36	30	73	28
200+	67	40	82	23
Total	43	33	67	31

Source: Farm interviews carried out in 1965 and 1969–70 in Rio Grande do Sul, Santa Catarina, and Sao Paulo.

The 1965 data show that 43 percent of the farmers received some cash credit, most of which was from institutional sources. Thirty-three percent had "credit in kind," almost all of which was from informal sources. Those borrowers with over 200 ha of land had substantially higher credit participation rates in both formal and informal credit. When data on value of loans were examined, it was found that farmers with 100 or more ha of land (20 percent) absorbed 80 percent of all the cash credit held by the total sample of farmers.

Data from 1969–1970, collected 4 years after the Brazilian government implemented its agricultural credit program, show a marked increase in the percentage of farmers with formal credit and formal credit participation rates by farmers of all sizes. However, when the value of these loans was analyzed, it was found that farmers with 200 and over ha (22 percent) held 74 percent of all cash credit. In other words, the largest farmers were able to capture a larger share of the subsidized credit; an increasing concentration of loans in the hands of a small number of large borrowers was revealed.

tential of these savings mobilization efforts was enhanced by complementary reforms that significantly raised interest rates on both loans and deposits. Research in Taiwan and South Korea was aimed at clarifying whether small farmers in these countries were actually able to save in significant amounts.

Following interest rate reforms in Taiwan, the supply of agricultural credit increased from $30 million in 1956 to $400 million in 1971. A substantial part of these expanded lending funds was attributed to savings mobilized through rural cooperatives. Research suggested that attractive interest rates paid on deposits coupled with high rates of return to on-farm investments played a key role in inducing substantial rural savings. As a result of these incentives, both small and large farmers were increasing their savings of surplus funds and decreasing their rate of consumption.

Studies in Korea showed similar evidence of significant savings capacity in rural areas. In the mid-1960s, after years of supporting only subsidized credit programs, the Government of Korea implemented two related endeavors: new interest rate policies and a national drive to promote rural savings mobilization through rural cooperatives.

The results were dramatic. Farm household surveys showed an increase in savings from 12 percent of household income in 1963 to 33 percent in 1974. Motivated by the increased rate of interest paid on deposits and the ability of rural cooperatives to provide a secure, convenient, and inexpensive way to save, even the smallest farms and households with the lowest incomes deposited significant amounts of money. The perception of cooperatives as secure places to hold savings was enhanced by their increased and more dependable supply of lending funds provided by mobilized savings. The dense network of rural cooperatives made banking convenient and inexpensive, since rural savers did not have to walk long distances or pay for transportation to make a deposit.

The experiences of Taiwan and Korea suggested that savings capacity did exist in developing countries, even among smaller farmers. Given the proper incentives, particularly attractive interest rates, significant savings could be mobilized to provide a pool of lending funds for rural borrowers and diminish the need for subsidized credit from donors.

Theories Concerning Subsidized Credit Programs

A.I.D. research in Brazil, Taiwan, and South Korea provided a basis for theoretical work that would reevaluate traditionally held views concerning the interactive nature of financial intermediation, productive investment, interest rate regulations, and rural development.

In the 1960s and 1970s, a number of theorists, including Raymond W. Goldsmith, Hugh T. Patrick, John G. Gurley, Ronald I. McKinnon, and Edward S. Shaw began challenging the traditional views of credit as an input that could stimulate production, cause new technologies to be adopted, and redistribute wealth to the poor. They argued that rather than being merely an input to production, financial systems were an integral part of the develop-

ment process. Financial sector development and overall economic growth tended to go hand in hand since credit resources were required for increased levels of investment, and this credit had to be made available through improved financial intermediation.

Gurley and Shaw maintained that financial intermediation contributed to economic development by efficiently allocating scarce resources and surpluses to the highest yielding investments. It facilitated the movement of resources from savers, who lacked an investment opportunity with a higher rate of return than the interest paid on deposits, to borrowers, who had higher yielding investment opportunities than savers. Borrowers' investment opportunities naturally were expected to yield a higher rate of return than interest paid on deposits, or borrowers would prefer to save. This contribution of financial intermediation to the development process, however, could only occur if interest rates were not held low by regulation.

McKinnon and Shaw criticized the traditional view that interest rates had to be low in order to stimulate investment. Suggesting a new approach, they argued that real, positive interest rates on savings deposits would discourage the spending of surpluses on consumption items by making saving more rewarding than consuming and would, at the same time, attract surpluses away from other forms of savings with lower returns. The resultant increased buildup of cash assets could then be used for productive investments.

Higher interest rates would also make it easier for financial institutions to mobilize private savings. Savings mobilization would not only contribute to bank pools of loanable funds, increased savings could also provide potential rural borrowers with collateral for loan funds. By reducing the risks of providing credit, this collateral would lessen the overall loan costs for both financial institutions and borrowers. As transaction costs associated with loans and savings accounts decreased, small farmers would be more likely to use banking services, and financial institutions would thus increase their role in broad-based development.

These theoretical contributions went hand in hand with the evidence from A.I.D.'s empirical research in Brazil, Taiwan, and South Korea. They affirmed that some of the assumptions underpinning subsidized credit were faulty and lent support to interest rate reforms and savings mobilization as a more effective model for increasing agricultural production in developing countries.

1973 A.I.D. Spring Review of Small Farmer Credit

In 1973 A.I.D. organized a Spring Review of Small Farmer Credit to evaluate past efforts in the field and to synthesize current research on agricultural credit. The frequency of high default rates and operational losses or defunct cooperatives revealed in 42 country studies demonstrated that, on the whole,

A.I.D. small-farmer credit institutions and programs were neither financially viable nor economically justified.

While variations existed among credit programs in different countries, the Review concluded that the financial systems in these countries shared common policies and problems. These included:

1. commodity and input price controls, underinvestment in marketing facilities, inappropriate agricultural technology that resulted in low returns on the use of credit for most farmers;
2. low interest rates and other administrative policies associated with agricultural credit that forced credit institutions to lend to large and less risky borrowers;
3. low interest rates on savings accounts and policies that discouraged would-be savers and forced financial institutions to seek sources of loanable funds from outside the rural areas.

According to the Review, additional loans to farmers would not, by themselves, increase agricultural production if prevailing policies fostered low farmgate prices, high-cost, or undependable or inadequate supplies of inputs, low yields, inadequate rural infrastructure, or other conditions that made investment opportunities in rural areas unprofitable. The overriding concern with increasing the availability of low-cost credit tended to divert attention from the low expected rates of return available to many farmers. In order for credit programs to be successful, investment opportunities had to exist that allowed small farmers to use credit profitably. This required improvements in technology, backed by markets that could supply the necessary inputs and absorb the output.

The low interest rates associated with small-farmer credit programs seriously restricted the way these funds were allocated. Lending institutions were motivated to protect their solvency, and since the demand for credit often exceeded the supply of loanable funds, they selected only those borrowers who had excellent credit ratings. In this environment, many small farmers were denied access to loans. Subsidized credit programs thus tended to regressively distribute income to larger farmers.

The Review concluded that policies in developing countries as well as the restrictions inherent in small-farmer credit programs made lending to small farmers difficult and costly. Subsidized credit programs tended to create debt for participating financial institutions and, at the same time, failed to increase small-farmer access to credit. In light of the enormous sums of money funneled into small-farmer credit programs and the resultant problems, the Review determined that a new approach to agricultural credit in developing countries was needed that incorporated rural savings mobilization.

Mobilizing Rural Savings in Peru

Subsequent to the Review, A.I.D. funded a demonstration project in Peru to experiment with rural savings mobilization. This project, carried out in conjunction with Banco Nacional para las Cooperativas (BANCOOP), involved assistance in promoting savings mobilization through five of BANCOOP's member cooperatives located in two rural regions of Peru.

When the project was initiated in 1979, the five participating credit unions were experiencing serious problems. Despite national reforms that dramatically raised interest rate ceilings on both loans and savings deposits, the credit unions continued to keep their interest rates low, a policy that resulted in perverse incentives. Rural households were motivated to borrow as much as possible, since prevailing rates of inflation were higher than the interest rate charged on loans, thus making loan repayment significantly less in real terms than the amount borrowed. But while members were eager to borrow, they had little incentive to save with their credit unions, since interest rates paid on deposits were so low relative to the inflation rate that the purchasing power of deposited savings would actually decrease over time. The increased borrowing coupled with the lack of savings mobilization left these credit unions severely short of loanable funds.

Credit union members were told that their approved loans could not be disbursed because of a lack of funds, and that there was no point in applying for new loans. As a result, members stopped making capital contributions, on which the credit unions depended for survival, and became inactive. For some credit unions, the loss of active members created serious loan recovery problems; members had little incentive to repay outstanding loans when there was no hope of obtaining new ones. Meanwhile, the credit unions accumulated substantial operating deficits, as interest revenues lagged behind growing operating costs.

The savings mobilization project was undertaken at a time when Peru's national economy was suffering from rapid inflation and stagnant economic growth. To mobilize savings, the project provided technical assistance to help BANCOOP personnel design savings mobilization campaigns that included employee incentives, publicity, and prizes for large deposits. If the savings mobilization scheme was to work, however, interest rates also had to rise. While there was some success in convincing credit unions to increase their interest rates, there was also much resistance.

Nevertheless, by mid-1980, the five BANCOOP credit unions had already mobilized far more than the mid-1981 goal of $150,000. Moreover, the growth in deposits continued beyond the end of the project and spread to BANCOOP credit unions outside the target regions. By October 1981, deposits in the five participating credit unions had climbed to more than $1 million and to more than $5 million for all of BANCOOP's affiliates.

Table 2
Deposit Mobilization at Four Participating Credit Unions

Credit unions	*December 1983*	*August 1986*
Deposits in DR$		
Santa Lucia	39,499	480,495
Vallejuelo	12,584	108,751
La Vega	84,036	223,602
San Jose	1,507,688	3,257,222
Loans in DR$		
Santa Lucia	35,709	390,501
Vallejuelo	8,008	91,337
La Vega	91,731	265,287
San Jose	1,264,075	2,833,676
Default (in percent)		
Santa Lucia	.48	.09
Valluejuelo	.70	.10
La Vega	.48	.22
San Jose	.03	.02

Source: Rural Savings Mobilization Project

The Peruvian project not only affirmed the existence of savings in rural areas and the possibility of mobilizing them with proper incentives, it also revealed the impact that savings mobilization could have on financial institutions. Savings mobilization reduced BANCOOP's dependency on government and international organizations for subsidized credit funds and improved BANCOOP's financial viability through increased profits and reduced loan delinquencies and defaults.

Experimental Approaches to Rural Savings

When the Peruvian experiment ended in 1982, A.I.D.'s Office of Rural and Institutional Development in the Bureau for Science and Technology launched the Experimental Approaches to Rural Savings (EARS) project to further explore the dynamics of savings mobilization. This new project included demonstration experiments in Latin America, Africa, and Asia, and involved agricultural and development banks, commercial banks, and credit unions. The goal, as in Peru, was to assist rural financial institutions to mobilize local savings in order to increase the capital pool available to farmers. Local projects would be initiated at the request of in-country USAID missions and tailored to rural financial problems in the host country.

EARS was initiated in Honduras in early 1982, in the Dominican Republic in late 1983, and in Bangladesh and Niger in 1984 and 1985, respectively.

These countries, like other developing nations, were affected by the worldwide recession of the late 1970s and early 1980s, experiencing increasing debt, inflation, and economic contraction that in turn diminished the credit available to small farmers.

While the EARS project was implemented to address specific rural finance problems in host countries, the mobilization of domestic savings ultimately helped mitigate a larger problem that resulted from shrinking international assistance funds. EARS engendered greater financial self-sufficiency in the countries and institutions that participated in the project.

The participating rural institutions had generally given little attention to mobilizing savings, neither promoting their deposit services nor paying attractive interest rates. Since the 1960s, for example, Peruvian credit unions had relied heavily on A.I.D.'s credit programs as a source of lending funds. They had little motivation to mobilize local resources as long as they could easily get funds from an outside donor. In the 1980s, however, as donor funds for lending became less available, rural financial institutions in many developing countries faltered. By mobilizing local savings through financial institutions, EARS demonstrated a practical alternative to foreign funding.

By 1985 the Honduran project had ended; the experiments in the Dominican Republic, Bangladesh, and Niger were completed in 1986. The amount of savings mobilized was substantial, except in Niger, where the effort was intended only to be exploratory. The accomplishments, however, went far beyond amassing deposits to create a pool of funds for lending; the financial institutions themselves were greatly strengthened by the project. Participating financial institutions, with the help of technical assistance, were transformed into much more efficient and viable instruments for serving the financial needs of the rural population.

Furthermore, the savings mobilization experiments revealed problems within the respective countries related to their broader economic environments. In trying to mobilize rural savings, it became apparent that these broader issues could not be overlooked. EARS thus spawned a broader interest in economic reform and assisted host countries in moving toward needed changes.

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3

Rural Savings Mobilization and Financial Market Reform in Honduras

Rural Financial Issues in Honduras

The EARS project in Honduras began as a replication of the savings mobilization demonstration in Peru. It was to provide another testing ground for the rural financial innovations explored in Peru, and, at the same time, address some of the difficulties specific to rural financial institutions in Honduras. Very early on, however, it became apparent that the situation in Honduras required a different kind of effort, one that encompassed broader issues of sustainability of RFIs and rural financial markets as a whole.

By 1983, when the EARS project was getting under way in Honduras, reliance on external funding sources had produced some severe problems for the country's RFIs. As a result of soaring inflation and regulations that made interest rates on loans negative in real terms, the Agricultural Development Bank, BANADESA, and credit unions experienced escalating operating costs that were not offset by the rates of interest charged on loans. At the same time, low interest rates on deposits (interest rates that were negative in real terms), offered little incentive to savers to make deposits in these RFIs, where the value of their savings would decrease over time. Meanwhile, worldwide economic conditions made it necessary for donor agencies to reduce their levels of assistance. This left a number of Honduran RFIs with little or no funds for lending; some were forced to declare bankruptcy.

Since domestic financial institutions were unable to protect deposits from inflation-caused erosion, many Hondurans invested their savings in U.S.-based banks that paid higher rates of interest. This capital flight, coupled with heavy

Small coffee growers in the more isolated mountain regions of Honduras rarely receive loans from formal financial institutions. Ohio State University photo.

government borrowing of domestic credit, created severe financial contraction; only very limited funds to operate the Honduran financial system were available in 19878-79.

In this situation, mobilization of domestic savings, alone clearly would not solve Honduras's financial problems. The scope of the project was, therefore, widened to address changes in the broader macroeconomic environment of Honduras that would make reforms possible and sustainable at many levels.

Honduras: The Country Context

In order to establish realistic goals before initiating savings mobilization and rural financial market reform efforts, the social, economic, and political context of Honduras had to be assessed. At the time of the project, Honduras was one of the poorest countries in the Western Hemisphere, with a per-capita income of $660. Over two-thirds of the labor force were engaged in agriculture, and agricultural exports accounted for approximately 30 percent of foreign exchange. The vast majority of Honduran farmers were smallholders; only 4 percent of the farms were classified as large, while 29

percent were small, and 67 percent were minifundia (less than 3 hectares). The average annual income of smallholder households in 1983 was about $100.

Many farmers lived in isolated mountain valleys or regions with limited access to modern educational, health, agricultural, and financial services. Only rarely did small farmers succeed in obtaining formal credit; in 1983 only 10 percent had outstanding loans from recognized financial institutions. While few had savings accounts, they generally attempted to save small amounts for special anticipated needs.

The national economy began experiencing serious debt problems in the early and mid-1970s; OPEC oil prices skyrocketed, inflation escalated, and commodity prices on the world market fell. These problems escalated in the late 1970s, causing increased capital flight and public deficit spending. The severe shortage of funds in the financial system and in the country as a whole created a financial crisis that left many rural financial institutions in Honduras insolvent.

Rural Financial Institutions in Honduras

At that time, three basic types of formal financial institutions existed in Honduras: public development banks, private commercial banks, and credit unions. In 1983, the National Agricultural Development Bank, BANADESA, had 28 rural branches that primarily provided most loan services (as opposed to deposit services) for the most part to smallholders who had benefited from recent land reform programs, a clientele avoided by private commercial banks. Most of BANADESA's funds came from the government or donor agencies. Loans were made at below-market rates of interest and carried stipulations that limited their legitimate use. They were often provided as part of a subsidized credit program targeted to small grain and coffee growers in the mountain regions. Over the years, BANADESA had experienced an increasingly high loan default rate.

Although Honduras had 16 private commercial banks, only three branches were located in the rural areas. Since the 1970s, however, these three branches had been very active, providing a substantial number of loans to farmers and demonstrating an excellent savings mobilization record. While the majority of BANADESA's loan funds came from external sources, the private commercial banks relied, for the most part, on locally mobilized savings for their lending funds. Their major clientele tended to be the larger coffee growers.

At the end of 1980, there were approximately 91 individual credit unions throughout Honduras, of which 45 were members of the National Federation of Credit Unions (FACACH); these member credit unions provided both lending and deposit services. From the beginning of the 1960s through the

The A.I.D.-CUNA project in Honduras in the mid-1960s resulted in a substantial expansion of the network of credit unions. The project helped these credit unions gain access to external sources of funding (A.I.D. photo).

mid-1970s, the network of Honduran credit unions expanded, with the most rapid growth in the mid-1960s, when A.I.D. and the U.S. Credit Union Federation (CUNA) implemented a credit union project designed to increase the access of small farmers to credit. The project also established FACACH to serve the interests of credit unions and to help them gain access to external sources of funds.

The period of growth of the financial system during the 1960s and through the mid-1970s was sustained. New and small financial institutions were able to win a larger share of the market by offering attractive interest rates and opening branches in locations convenient to large numbers of potential clients; some of these new branches were in the rural areas.

However, the private commercial banks were even more successful during this period of expansion, accounting for 80 percent of total lending and 86 percent of total deposits. Their success was attributed largely to their willingness to pay higher interest rates on savings deposits than BANADESA or the credit unions. As the public agricultural development bank, BANADESA traditionally offered low rates to borrowers and depositors; and since credit unions tended to view their role as providing credit to small farmers, they too were reluctant to charge interest rates on loans as high as those allowed by regulation, or to pay higher interest rates to depositors. Since BANADESA and the credit unions largely relied on external sources for their lending funds, they were not as dependent on attracting deposits as were the private commercial banks.

But while the private commercial banks were relatively active in the rural areas in terms of lending and savings mobilization, during this expansion period their network remained concentrated in the two major urban centers, Tegucigalpa and San Pedro Sula. During the previous 10 years, as rates of inflation increased, the financial system had been increasingly controlled by the Honduran government. These controls included restrictions on bank branching that, in many cases, prevented the expansion of the commercial banks into rural areas.

The financial crisis of 1978-79 created serious problems for these private banks. The government's enormous deficit spending crowded out the private banks, consuming much of the domestic capital at an interest rate that private banks were unable to match, leaving them without sufficient funds. The consequence was a dramatic decline in credit available to Honduran farmers.

Meanwhile, BANADESA branches and credit unions in the rural areas were experiencing high rates of loan delinquency. The high default rate in Honduras was caused by circumstances very similar to those that had created this situation in Peru. High levels of inflation coupled with relatively low interest rates translated into escalating operating costs, decreasing real interest revenues, declining deposits, and, therefore, shrinking funds available for lending. As soon as farmers realized that these RFIs were no longer able to

make loans, their motivation to repay outstanding loans diminished. These problems particularly affected BANADESA and the credit unions as donor funding began to shrink.

Shrinking donor funds combined with the scarcity of domestic funds threw the entire financial system into a crisis that affected BANADESA, the credit unions, and the private commercial banks. By 1981 the value of new loans from the banking system had declined by 67 percent of the 1978 level. The decline in agricultural loans was even more dramatic, since farmers tended to be the most marginal clients.

The A.I.D. Effort and Its Outcome in Honduras

Reduced availability of funds produced two problems: (1) the bankruptcy or severe contraction of many rural financial institutions, resulting in a lack of credit available for agriculture; and (2) a scarcity of loanable funds in the country as a whole, resulting not only from reduced donor funds, but also as a consequence of capital flight. Because government regulations held interest rates low, despite soaring inflation banks could not raise the interest rates to a level that would conserve the value of deposits. In the United States, however, interest rates were much more attractive. The answer for Hondurans with savings was clear: send your money to Miami. And so by 1983, on the eve of the project, money was flowing out of Honduras at a significant rate, further exacerbating the scarcity of domestic capital.

To increase the loanable funds available to small farmers, however, the first order of business to be addressed had to be the flow of capital out of the country. Unless financial institutions were allowed to protect local resources from erosion by inflation that precipitated capital flight, there was no hope of effectively mobilizing savings or increasing the loanable funds available to farmers. Moreover, financial institutions could not adjust to or survive in an environment of high inflation and low interest rates; any efforts at institutional strengthening would be in vain.

The initial plan for EARS in Honduras was essentially to replicate the Peru project. However, after the first phase of research into the performance of BANADESA and the credit unions, it was clear that a savings mobilization project alone would not resolve the problems. The scope of the project in Honduras was broadened from the Peruvian model to include four types of activities: policy dialogue to achieve macroeconomic reforms; investigation of the macroeconomic forces affecting the performance of rural financial markets; microeconomic research to examine lending costs of different financial intermediaries and borrower costs for grain and coffee growers; and a savings mobilization demonstration.

Interest rate liberalization or deregulation was high on the list of needed macroeconomic reforms. To achieve deregulation, however, bankers and policymakers first had to be persuaded that such a change would not further restrict farmer access to credit. The results of the macroeconomic and microeconomic studies, as well as the savings mobilization demonstration, would be used as evidence in dialogues to convince policymakers of the necessity for change. Workshops and seminars would further disseminate awareness of the need for interest rate and other financial reforms.

Efforts to liberalize interest rates through policy dialogue met with both frustration and success. Although the Central Bank could not be convinced to remove the interest rate ceiling, they were willing to keep interest rates high enough to prevent capital flight to the United States. However, when U.S. interest rates started to come down in 1982-83, the Central Bank Governor wanted to lower rates in Honduras to match the decline in the United States. The three economists who had worked closely with the project argued effectively against this move. They convinced the governor that Honduras needed a relatively higher interest rate as an inducement to prevent further capital flight.

The lack of loanable funds in rural areas was partly the consequence of the contraction of RFIs, but market structure studies also revealed that capital was flowing from rural to urban areas. These two trends raised a number of critical questions. First, what was causing banks to concentrate in urban areas, leaving rural areas inadequately served? Second, should RFIs engage in savings mobilization if the resulting funds flowed from rural to urban areas and were thus unavailable for rural lending?

Findings suggested that the urban bias of both capital flows and banking networks resulted from higher returns on urban investments, higher transaction costs in rural areas, and government regulations. The rural-to-urban flow of funds essentially reflected the better investment opportunities in urban areas, where even rural financial institutions invested their monies in order to obtain higher yields on their investments. The difference in rural and urban investment returns was, in turn, the result of exchange-rate policies that tended to make farming an unprofitable investment.

The higher transaction costs of making loans or mobilizing deposits in the rural areas were partly due to fixed costs relative to the small size of the loans and deposits of poor farmers. Further, monitoring loans and making creditworthiness decisions for a widely dispersed population of borrowers could be costly. Yet the Central Bank's regulations governing interest rates prevented RFIs from charging rates that reflected these higher costs. As a consequence, many banks could not afford to maintain or open rural branches. Fewer banks in rural areas meant that farmers had to travel farther and, therefore, bear higher transaction costs to obtain loans.

Branching regulations also contributed to the high costs of rural banking by limiting the size of the market a branch could serve and by establishing minimum net worth criterion for branches. Bank branches were required to have and maintain a minimum reserve of capital before they were allowed to open. These restrictions made the cost of locating a branch in a rural area relatively greater than in an urban area.

As for doubts about the wisdom of mobilizing rural savings in light of the rural-to-urban flow of investment funds, it was found that rural financial institutions were investing farmers' savings in the larger cities in order to get the highest rate of return. They passed these benefits on to farmers in the form of higher interest payments on deposits. Thus, farmers were benefiting from this allocation of their savings; they were getting a higher return on their investment than if they had been forced to invest in their locales.

To increase the viability of rural financial markets, the private commercial banks, as well as BANADESA and the credit unions, had to be strengthened. The private commercial banks deserved attention since they were such important intermediaries in rural Honduras. They were responsible for financing traders, truckers, processors, exporters, and others engaged in marketing agricultural products. If these intermediaries could not get access to capital, they would not be able to buy farmers' crops or make advances for farm inputs; and a multitude of producers would suffer. The numbers of people involved in this marketing and financing chain were many times greater than those reached by the public development bank.

Particular attention was given to BANADESA, because, as the national agricultural development bank, it served small farmers, a clientele that other RFIs considered too risky. An investigation of BANADESA's banking procedures and costs was needed before local savings mobilization and institutional strengthening could be accomplished. While mobilizing its own capital would help resolve loan fund shortages resulting from shrinking donor funds, high lending costs had to be dealt with if BANADESA was to become self-sustaining. How did external funding affect these transaction costs and BANADESA's ability to be self-sustaining? What impact did the targeting stipulations associated with subsidized credit programs have on these transaction costs?

The transaction costs studies undertaken in Honduras were the first substantive and rigorous work done in this subject area. Few researchers had explored the lending costs of subsidized loans, which were incurred to satisfy the screening, documenting, supervising, and extensive reporting requirements of donors; nor had borrower's the transaction costs, associated with proving loan eligibility, been examined. These transaction costs were a critical element in the viability of RFIs and in the real cost of borrowing credit.

One set of studies compared the lending costs of BANADESA's rural branches with those of private commercial banks operating in rural areas.

The Source of a Bank's Funds Affects Its Lending Costs

Table 3
Lending costs of private commercial bank and BANADESA in Honduras, 1981

Costs	*Commercial Bank*	*BANADESA*
Average lending costs per loan Lps. = lempiras 1 U.S. dollar = 2 Lps.	Lps 1,748	Lps 260
	Percent	
Average lending costs per lempira lent	2.5	8.4
Lending costs/overall costs	33.0	77.0
Personnel costs/total lending costs	41.0	27.0
Loan evaluation costs/total lending costs	45.0	16.0
Loan monitoring costs/total lending costs	4.0	7.0
Loan recovery costs/total lending costs	14.0	6.0

Source: Bank income and expenditure statements and branch-level surveys.

The average lending cost per loan made by the private commercial bank was almost seven times that of BANADESA. This discrepancy was partly explained by the fact that the average size of loan made by the private bank was 22 times that of BANADESA. However, the data further reveal that lending costs made up a much larger proportion of overall costs in BANADESA than in the private commercial bank. Because BANADESA received a large part of its funds from external sources, a relatively large percentage of its overall costs was spent on lending these funds to a targeted population at subsidized rates. The higher proportion of its lending costs devoted to loan monitoring as compared to that of the commercial bank reflects the costs of targeting requirements associated with subsidized credit programs. The private commercial bank that relied primarily on deposit mobilization for its funds put relatively more of its resources into loan evaluation, in order to protect funds belonging to its local clientele as well as its own profitability.

Loans made by private commercial banks were generally found to be much larger than those made by BANADESA. Since the cost of making many small loans is greater than lending the same sum in larger amounts to fewer borrowers, BANADESA's transaction costs were significantly higher than those of the private commercial banks. In fact, BANADESA's average lending cost per unit of money was more than three times that of private banks.

Loan transaction costs per unit of money from donor funds was five times greater than the costs of loans (for agriculture) from BANADESA's own resources. This higher cost resulted from the far more complicated and costly set of procedures associated with administrating external funds. Even though external funds were provided at low cost to BANADESA targeting requirements brought the cost of lending these funds to 8 to 10 percent, while donors allowed only 3 to 4 percent for administration of the loans. Even if the bank fully recovered every targeted loan, it would lose 4 to 7 percent.

The effect of targeted loans on the transaction costs of grain and coffee growers, the groups most often targeted by subsidized credit programs in Honduras, was investigated. Household surveys revealed the high cost of negotiating and obtaining targeted loans from RFIs. These costs varied with the size of the loan: the smaller the loan, the higher the proportional costs. For the smallest loans, borrower costs were as high as 45 percent of the loan value. In other words, the poorer farmers applying for the smallest RFI targeted loans incurred such proportionally high transaction costs that they were likely better off borrowing from the financiero in their village despite the lower RFI interest rates.

An experimental program was set up in Honduras. Five participating credit unions constituted an experimental group in which interest rate reforms were implemented; a control group of 10 credit unions operated as usual. Researchers hoped to demonstrate that increased rates of interest would result in increased deposits, and that savings mobilization would strengthen rural financial institutions.

From 1981 to 1983, the five experimental credit unions raised their interest rates on deposits by an average of 1.5 percent. In response, the value of savings deposits, which had grown slowly in previous years, grew 128 percent from 1981 to the end of 1983. During the same period, the 10 credit unions in the control group maintained their original interest rates and experienced only a 17 percent increase in the value of their savings accounts. These dramatic findings suggested the results that might be achieved with interest rate reform.

Loan delinquency rates were also compared for the experimental and control groups of credit unions. The control group received a high share of their lending funds from external sources, while the experimental credit unions relied on locally mobilized funds. The delinquency rates for the experimental group never got far above 17 percent but reached as high as 50 percent for the control group.

Insights Gained in Honduras

1. *Policy dialogue may be necessary in order to create a macroeconomic environment that supports the viability of financial markets.*

The depth and severity of economic problems in Honduras made macroeconomic reforms a necessity. Policy dialogue was undertaken to convince decision makers of the need for policy reforms that would enable the country's financial markets to stabilize, so that benefits realized from savings mobilization could be sustained.

2. *Rural-to-urban flows of funds cannot be redressed through subsidized credit, investment, or poverty programs.*

The urban bias of capital flows and the urban concentration of financial institutions in Honduras resulted from policies and regulations that enhanced the attractiveness of urban investments compared to rural investments. Under these conditions, efforts to pump money back into rural areas through, for example, subsidized credit programs, will be ineffective. Rural savings will continue to flow back to cities if yields on investments in urban areas are higher. Short of policy reform, efforts to redress rural-to-urban capital flows would continue to fail and would mask the real reason for the problem. This in turn would allow policymakers to continue to ignore the financial consequences of regressive macropolicies.

3. *Dependency on external funding can impose high costs on financial institutions.*

Studies comparing the lending costs of BANADESA, which relied primarily on donor funding, with those of private commercial banks, which mobilized local savings, revealed the financial burden of lending targeted funds subsidized by donors or governments. Donor funding tends to create disincentives for loan recovery. In Honduras, comparisons between credit unions that relied on donor funds and those that mobilized local savings showed that the delinquency rates for the former group was, in some instances, four times as high as for the latter group. Researchers concluded that RFIs are unwilling to expend the effort and resources necessary to recover loans when they believe that donors will cover banking losses.

4. *Targeted loans can condemn financial institutions to losing money because of the high administrative costs imposed by targeting.*

The high costs associated with lending targeted funds was confirmed by research on transaction costs in Honduras. Moreover, borrower costs associated with targeted loans were found to be so high that they essentially excluded the small farmers who were [illegible] beneficiaries.

5. *Savings mobilization can strengthen [illegible] institutions.*

Mobilizing deposits forced RFIs [illegible] to be concerned about the balance between money coming in a[illegible] and interest payments, on the one hand, and money going [illegible] operating costs, on the other. In order to protect the incom[illegible] are deposited by local

residents, RFIs had to learn how to make creditworthiness decisions, recover loans, and reduce operating costs.

Areas for Further Investigation

1. *What is the most effective means of conducting policy dialogue?*

The majority of the studies in Honduras were conducted by A.I.D.-funded researchers. In retrospect, it was realized that collaborative research with local officials and researchers would help to clarify and disseminate the reasoning behind rural financial liberalization, ultimately facilitate policy dialogue, and influence future project design.

2. *Is it wise to mobilize rural savings when funds flow from rural to urban areas?*

Rural-to-urban flows of funds can reduce the loanable funds available to farmers. Yet they reflect the better investment opportunities in urban areas and provide farmers with the highest interest on their savings. Thus, on the one hand, farmers have less access to credit, and yet on the other, they benefit from their urban deposits. The only way out of this dilemma is to change policies so as to make rural investments competitively profitable. To refrain from mobilizing savings in rural areas would only hamper long-term development of rural financial systems.

4

Rural Savings Mobilization and Financial Market Reform in the Dominican Republic

Rural Financial Issues in the Dominican Republic

In the Dominican Republic EARS was part of a larger USAID/Santo Domingo project called Rural Savings Mobilization. As was the case in Honduras, this project began as a savings mobilization demonstration involving the national agricultural development bank, Banco Agricola. However, concern over the macroeconomic environment in the Dominican Republic, which displayed many of the same problems evidenced in Honduras, led to a broadening of the project's focus to encompass a concern for macropolicy and overall rural financial market reforms.

Accelerating inflation, increasingly negative interest rates as a result of regulations, and expanding public deficit spending undermined the viability of rural financial markets in the Dominican Republic. Many formal rural financial institutions had severe solvency problems, and savers were unwilling to deposit surplus funds in RFIs. Policy reform was needed to create a macroeconomic environment conducive to viable financial intermediation. A central issue in the Dominican Republic, however, was how best to conduct policy dialogue to achieve necessary reforms.

RFIs in the Dominican Republic needed to be strengthened. Like BANADESA in Honduras, Banco Agricola did not mobilize deposits, but relied heavily on external sources of funding. As a result, it experienced high operating costs, including a loan default rate that reached almost 70 percent by the early 1980s.

This poor performance prompted donors to reject Banco Agricola's requests for additional funds. Reduced donor funding was compounded by losses from loan defaults. This produced a serious shortage of loanable funds available to farmers, since Banco Agricola, with 31 rural branches, was the most prevalent financial institution in the rural areas.

In the urban areas, the informal sector was thriving. Unrestricted by interest rate regulations, urban financieros offered interest rates on deposits that regulated financial institutions could not match. As inflation continued to grow, the enticement of high interest rates offered by these urban-based financieros was so great that funds from rural areas were flowing to the cities. Rather than lending to farmers, informal financial intermediaries in rural areas were also depositing funds in unregulated urban accounts, leaving farmers with virtually no access to loanable funds.

The Dominican Republic: The Country Context

The political environment in the Dominican Republic had been unstable since the early 1970s. Between 1973 and 1978, three unsuccessful coup attempts were made. A succession of protests involving thousands of Dominicans erupted during the late 1970s and continued to occur until the new election in May 1986. This instability left shifts in policy and leadership that undermined development efforts. For example, the Secretary of Finance changed twice in 1984, hampering EARS' efforts to reform rural financial markets between 1983 and 1986.

For about five years in the late 1960s and early 1970s, the economic environment in the Dominican Republic was healthy and relatively stable, with an annual GDP growth rate of 10.6 percent, one of the highest in the world. Then, in the late 1970s, the economy suffered substantially because of dependency on oil imports, the cost of which were growing astronomically. The GDP slowed to an annual growth rate of 4.5 percent between 1975 and 1981 and slowed further in subsequent years, until it dropped to a negative 2.2 percent in 1985. Thus, the economy in the Dominican Republic was experiencing serious problems as the EARS project was getting under way.

In 1985 unemployment rose to almost 30 percent. Underemployed workers represented another 30 percent of the Dominican workforce. Inflation increased from an annual average of 6.9 percent in 1983 to nearly 40 percent in 1985, and the public deficit mounted. In reaction, the government introduced 125 emergency economic measures as part of a fiscal reform program. In 1986, more than two years after the initiation of EARS, the economy began to recover. Inflation fell to 6.1 percent, though the foreign debt remained enormous at $3.5 billion.

The cause of the dramatic downturn in the economy was partly due to a worldwide recession triggered by an increase in oil prices, but it was also the

result of a sharp drop in world prices for sugar, the Dominican Republic's main export. Between 1981 and 1982, export earnings from raw sugar fell by 43 percent. In 1985 the United States reduced its sugar import quota by 44 percent, precipitating a crisis in the Dominican sugar industry that rippled throughout that country's economy.

Rural Financial Institutions in the Dominican Republic

The rural areas of the Dominican Republic were served by two types of regulated financial entities: branches of Banco Agricola and credit unions, the latter being quasi-formal institutions. Operating alongside these two institutions were informal, unregulated institutions. The unregulated urban financial sector in the Dominican Republic was particularly strong and influential, while the unregulated rural sector consisted for the most part of traditional intermediaries operating in small markets, unconnected to one another.

Banco Agricola was originally established in 1945 as a Development Bank. In 1954 it began to specialize in credit services for the agricultural sector. Prior to implementation of the EARS project, this Agricultural Development Bank functioned solely as a lending window for funds that came from two major external sources: foreign donors, especially A.I.D., the Inter-American Development Bank, and the World Bank; and the Dominican Central Bank. Some of the funds from the Central Bank were provided through rediscounting; that is, the Central Bank would "buy" outstanding debt to Banco Agricola, providing lower returns to Banco Agricola on the loans, but thereby providing Banco Agricola with new funds to lend.

These external funds, however, came in waves, at times overloading the bank's capacity to disburse them and leading to an expansion of staff. At other times, there was a scarcity of funds to lend and with which to pay the expanded staff and other administrative costs. As a result, Banco Agricola did not offer farmers dependable credit service. During the 1970s and early 1980s, a very small proportion of the rural population had access to credit from a regulated financial institution; only an estimated 20 percent of Dominican farmers had ever received a formal loan.

Despite its weaknesses, Banco Agricola was the most important regulated financial institution lending to the agricultural sector of the Dominican Republic. It had 31 rural branches scattered throughout the country, in some instances in places where no other financial institutions existed.

During the late 1970s and early 1980s, as oil prices climbed, sugar prices declined, and recession spread worldwide, public sector deficits mounted in the Dominican Republic. In order to finance these deficits, public sector borrowing expanded rapidly, leaving the Central Bank with little funds to lend to Banco Agricola at the usual discount rate. Banco Agricola looked to

other external sources of funding, but the international donors, also undergoing financial contraction, were unable to respond as they had in the past.

A shrinking resource base, however, was not the only reason donor agencies rejected Banco Agricola's requests for funds. They had become increasingly disenchanted by Banco Agricola's high operating costs, high default rate, and lack of financial viability.

In the early 1980s, Banco Agricola's loan default rate was estimated to be as high as 70 percent in some branches. This high default rate was partially the product of the bank's image as a political tool that funneled patronage to favored constituencies. Much of the rural population viewed the bank in this way and felt little obligation to repay loans. Frequent political intrusions and mandates also reduced Banco Agricola's willingness to accept responsibility for loan collection.

The first credit union was established in the Dominican Republic in 1946. In 1949 the Dominican Federation of Credit Union Cooperatives and Multiple Services Inc. (FEDOCOOP) was founded to coordinate and promote the Dominican credit union movement. By 1985 FEDOCOOP had grown to 125 credit union members, 54 of which were located in rural areas. Headquartered in the capital city of Santo Domingo, FEDOCOOP promoted the credit union movement, provided technical assistance, educated credit officers, provided financial support to member credit unions, audited credit union books, and managed a life insurance program for credit union borrowers.

Despite the provision of these services, FEDOCOOP's performance was weak in a number of critical areas. First, its financial situation was precarious; it was heavily in debt to the Latin American Confederation of Savings and Loan Cooperatives (COLAC) and other institutions due to outstanding loans obtained for relending to member cooperatives. Because many credit union loans were in serious arrears, FEDOCOOP was unable to service its debts. Second, in 1983 FEDOCOOP had annual operating losses amounting to almost 30 percent of its total expenditures. Third, its financial difficulties had forced the Confederation to cut back on services to the credit unions, seriously threatening its life insurance program for borrowers and curtailing loan funds available to cooperatives. Finally, the overall financial status and activity of most Dominican credit unions was weak. In fact, with the financial crisis and resultant reduction of domestic credit, many credit unions were essentially forced into bankruptcy.

And yet, in the early 1980s the credit unions were the only rural financial institutions in the Dominican Republic structured to mobilize savings. However, this savings mobilization was usually accomplished through forced savings that consisted of deposits required by the credit unions of their members. Since the credit unions paid no interest on deposits, it was not surprising that they were unsuccessful at generating a pool of local lending funds, particularly

in the early 1980s, when the inflation rate was beginning to accelerate. Their inability to mobilize local savings made the credit unions extremely vulnerable to diminished external sources of funding, thereby contributing to their difficulty in remaining solvent.

By 1983 the regulated sector of the financial system, including Banco Agricola and the credit unions, was experiencing severe financial problems. While this sector was contracting, the urban unregulated financial sector was undergoing substantial growth. The boom was the result of an increasing inability of the formal banking sector, restricted by a proliferation of regulations, to match the high interest rates paid by the urban financieros. While urban unregulated financial intermediaries did not guarantee deposits, the higher interest rates they paid compensated for the risk. They paid an annual average of 30 percent on deposits and charged an annual average of about 50 percent on loans. In contrast, the regulated financial institutions could not pay more than 18 percent per year on deposits.

The comparative advantage of the urban unregulated sector grew explosively as inflation increased. By 1985, when the inflation rate had reached almost 40 percent, by some estimates it comprised 40 percent of the entire Dominican financial sector. Without the constraints of regulations established by the Central Bank, urban unregulated institutions were successfully competing with regulated financial institutions, and even with the rural unregulated sector. In the midst of high inflation, the high interest rates paid by the urban unregulated sector prevented the kind of capital flight that occurred in Honduras and exacerbated that country's scarcity of lending capital. The urban financieros were, in fact, filling a real gap in the Dominican financial system by providing the only depository in the country that could protect savings from being consumed by inflation.

While the urban unregulated sector prospered from Banco Agricola's problems, it did little to improve the access of the rural population to financial services. The high interest rates paid by the urban financieros were resulting in rural-to-urban flows of capital, leaving little for the farmer to borrow. Even if farmers were willing to travel to urban areas to take advantage of services offered by the financieros there, the high interest rates charged on loans and the collateral requirements precluded many small farmers and landless laborers from obtaining loans from these unregulated urban lenders. The volume of informal lending from rural sources was further reduced because rural intermediaries found it more profitable and less risky to deposit funds in urban informal institutions than to lend them to farmers.

The bankruptcy of many credit unions, the drop in funds available to Banco Agricola, and the shrinking volume of informal lending in rural areas all resulted in a severe contraction of credit available to agriculture and left the rural population with even less access to financial services than it had before the financial downturn.

This woman obtained a loan from an urban financiero to set up her shop. As inflation escalated in the Dominican Republic in the early 1980s, the urban informal financial sector was a prominent mobilizer and lender of domestic savings. World Council of Credit Unions photo.

The A.I.D. Effort and Its Outcome in the Dominican Republic

The Rural Savings Mobilization project, of which EARS was a part, was initiated in the Dominican Republic in late 1983 to help financial institutions mobilize domestic savings, particularly in the face of shrinking donor funds and the increasing instability of the financial institutions through which donor funds were channeled. While interest rates needed to be allowed to rise above the inflation rate to mobilize domestic savings, this was recognized as only a partial solution to the financial problems. Raising the ceilings on interest rates would not produce sustainable results without fundamental policy and financial market reforms. Policy reform was essential to create a favorable economic environment in which inflation was controlled, investment opportunities existed in rural areas, and political intrusion into the financial system, which destroyed the accountability of banks and their borrowers, was discontinued. As part of needed financial market reform, institutional strengthening was also essential; Banco Agricola, in particular, had to be made a viable operation.

This farmer was able to obtain a loan to buy a new sprayer for his crops in 1975. After economic contraction in the late 1970s, there was a severe scarcity of credit available to the rural population. World Council of Credit Unions photo.

The rural finance project in the Dominican Republic included a savings mobilization demonstration component in order to test once again the feasibility of mobilizing voluntary savings in the rural areas. The scope of the savings mobilization efforts in the Dominican Republic went beyond the bounds of the project in Honduras, however, including not only a credit union experiment similar to that in Peru and Honduras, but also research and demonstrations at Banco Agricola and, eventually, other financial institutions.

Building on previous experience in the Dominican Republic, EARS also placed particular emphasis on policy dialogue and collaborative research aimed at revising financial policies and regulations and strengthening rural financial institutions. Four types of closely linked activities were undertaken: policy dialogue, research, savings mobilization demonstrations, and dissemination of the results of the research and the savings mobilization efforts.

The purpose of the research component was to enrich policy dialogue, improve the project design through insights gained from locally conducted research, and facilitate the transformation of Banco Agricola, the credit unions, and other rural financial institutions into efficient operations. The research would contribute to policy dialogue not only with the information it generated, but also because concerted efforts would be made to involve Do-

minican researchers in the investigations. This collaboration would give Dominican researchers a vested interest in EARS and in promoting the reforms proposed on the basis of its research.

The main goal of policy dialogue in the Dominican Republic was to create a regulatory environment that would not discriminate against rural financial markets. The existing regulatory structure limited the expansion of the financial infrastructure into rural areas with restrictions such as excessively high minimum capital requirements for opening rural banks or branches, and limitations on interest rates and the kinds of activities that RFIs could undertake.

Implicit in the policy dialogue component was a belief that profound reform would come about only if the Dominicans were convinced of its benefits, and not from applying "leverage" by funding credit operations. One of the lessons learned in Honduras was that conditionality was an ineffective means of bringing about reforms.

EARS' policy dialogue efforts were successful in mitigating the restrictions on rural financial markets imposed by the Central Bank's regulations. Dominican authorities were convinced to substantially lower the minimum capital requirements necessary to open a rural branch and to make them considerably less than those for urban branches. Restrictions on the kinds of services an RFI could offer and on the cash reserve required for rural banks to have on hand in relation to the amount of savings deposits were also relaxed. The previous reserve requirement was so high that it taxed the system in a way that ended up costing depositors, borrowers, and institutions.

In the area of interest rate reform, however, accomplishments were less impressive. Central Bank authorities could be convinced to liberalize interest rates only partially, allowing banks to ignore interest rate ceilings for 25 percent of the loans they made. Officials at Banco Agricola were persuaded to revise their annual loan rate to a uniform 16 to 18 percent, a significant increase over the previous and more variable rate of between 8 and 12 percent. Banco Agricola also began to offer interest on deposits for the first time. Although the rate was only marginally higher than that paid by commercial banks and much lower than interest rates offered by the urban unregulated sector, Banco Agricola's provision of deposit services in rural towns did, however, substantially reduce depositor transaction costs and thus increase the net returns on rural savings.

As authorities became convinced of the need for reform, their vested interests in the success of Banco Agricola and the credit unions grew. As a consequence, however, they resented the continued superior success of urban unregulated financial institutions. At one point, Dominican authorities threatened to close down the urban financieros. The project team convinced the Dominicans that this would be a mistake in that it could lead to capital flight.

Seminars and workshops were part of the policy dialogue effort in the Dominican Republic; they were important forums for sharing research findings and discussing financial issues. Ohio State University photo.

Not only were the substantive results of the policy dialogue efforts in the Dominican Republic important, the process itself was an accomplishment. The information generated by the project proved to be an effective instrument for discussing complex and controversial issues; most importantly, the project demonstrated how effective dialogue could be promoted.

In addition, the project established Dominican research capability on financial market issues and institutionalized research units within the Central Bank, Banco Agricola, and several universities. During the first year, eight research projects were completed, six more were added in the second year, and another six were added during the third year. These projects investigated rural informal financial markets, urban unregulated financial institutions, the behavior of depositors, the costs of lending, and the role of financial regulations.

Other research was undertaken to assess the impact of savings mobilization on the viability of rural financial institutions. A longitudinal study at Banco Agricola, comparing operating costs before and since 1983, the year the bank first began offering deposit services, revealed that provision of deposit services decreased not only the costs of lending, but also the overall costs of interme-

diation. Average costs declined because of the economies experienced from using the same resources for both deposit and lending services. This finding confirmed the wisdom of offering deposit services; deposit mobilization not only provided funds for lending, but also strengthened the institution by improving its profitability.

Research on transaction costs at Banco Agricola and the credit unions supported reduction of such costs as an important incentive to save. The provision of deposit services by Banco Agricola significantly improved rural accessibility to financial services, thereby reducing the transaction costs associated with depositing savings in a formal financial institution. While reduced transaction costs proved to be a powerful mechanism for attracting rural depositors, the convenience and security offered by Banco Agricola also motivated farmers to deposit their savings in this RFI.

The savings mobilization demonstrations began with the participation of five branches of Banco Agricola and four credit unions. Authorities at Banco Agricola became so enthusiastic about the project, however, that within a year and a half the number of participating bank branches increased almost fivefold, with all but 2 of the bank's 31 branches offering deposit services for the first time.

This rapid expansion of the project created both opportunities and dangers. While Banco Agricola could experience certain economies from the wider participation of its branches, the project was still experimental. Project researchers were still trying to determine the conditions under which deposits could best be mobilized and the changes required in policies and procedures to bring about success and long-term viability. Moreover, the bank had not yet adopted operational and structural changes that were believed to be necessary to sustain benefits. Nevertheless, Banco Agricola management decided to go ahead with the expansion and face the new challenges as they arose.

Table 4 documents the expansion and success of Banco Agricola's savings mobilization campaign.

By October 1985, the number of new Banco Agricola savings accounts had reached over 20,000. This meant that, on the average, there were about 700 new accounts per branch. The rapid pace at which the branches were incorporated into the project explained in part the rapid growth of deposits during the first year of the effort, when about DR $7 million was mobilized. What was striking, however, was that the growth rate of savings accounts did not level off even after all branches had adopted the new activity. One year later, the number of deposit accounts had almost doubled to over 36,000. By the end of 1987, Banco Agricola had mobilized over 66,000 deposits. The value of deposits had similarly escalated to DR $23 million by late 1987.

The number of accounts mobilized was impressive; no other bank in the Dominican Republic had a larger number. While the volume of savings mobilized equaled only about 10 percent of Banco Agricola's total resources, it

Table 4
Deposit Mobilization at Banco Agricola

Date	*Number of Branches*	*Number of Accounts*	*Amount in DR$000*
August 1984	7	1,160	434
August 1985	29	17,374	6,309
October 1985	29	20,813	6,958
October 1986	20	36,984	9,476
October 1987	31	66,570	22,916

Source: Rural Savings and Mobilization Project and Banco Agricola

was greater than new funds attracted from other sources. Even more important, however, savings mobilization resulted in a substantial decline in lending costs that contributed considerably to Banco Agricola's viability.

Research revealed that a substantial number of the new accounts were small, and that a large proportion of depositors made frequent transactions. These findings suggested that Banco Agricola attracted a widespread clientele of small operators and that deposit accounts were a convenient way for this group to manage their liquidity.

Banco Agricola's success was clearly associated with its accessibility to the rural population. The reduced transaction costs, the convenience, and the security offered by Banco Agricola attracted rural depositors, despite the limited degree to which interest rates were liberalized. The project at Banco Agricola demonstrated that relatively high interest rates were not a prerequisite for successful deposit mobilization campaigns. Other incentives could also motivate people to deposit their savings in formal financial institutions; eventually, in order to maintain this success at savings mobilization, Banco Agricola would have to offer more competitive interest rates.

As was expected, the savings mobilization activity at Banco Agricola created some complications, or second-generation problems. While those involved in the project believed that these problems would stimulate a problemsolving process that would lead to institutional strengthening, the rapid expansion and enlarged dimensions of the mobilization efforts at Banco Agricola produced urgent problems earlier than had been expected. For example, the new services created massive information requirements with which some branches had difficulty coping. While this was a challenging time for the branch managers, it did convince many of the necessity for a number of reforms.

To deal with the problems associated with the new activity, Banco Agricola established a deposit mobilization department with a full-time staff of five persons. This staff participated in the design, implementation, and monitor-

ing of the savings campaigns and were therefore very knowledgeable about the project. As a result of their understanding of the complexities and difficulties that emerged as the project expanded, the deposit mobilization department supported the organizational changes designed to improve the efficiency of Banco Agricola. Microcomputers were introduced and major training programs were undertaken. Changes included new forms for reporting information, computer programs for data management, a new system of client classification, and better collection procedures. To improve its profitability, Banco Agricola raised its interest rate on loans to the maximum allowed.

Although these policy and organizational changes did a great deal to transform Banco Agricola into a more efficient operation, success at mobilizing savings produced a second-generation problem that was psychological as well as technical. For the first time in the history of the bank, it was lending funds that came from neighbors and family members rather than from a distant donor. Branch managers were very cautious about lending the savings of people they knew. Moreover, because of the bank's previous top-down, rigid procedures for disbursing funds, branch managers had never developed the skills for evaluating creditworthiness. As a result, Banco Agricola's board of directors imposed severe restrictions on borrower eligibility. This slowed the lending of funds to the point that bank branches began accumulating excess liquidity and, as a result, relaxed efforts to mobilize additional savings deposits.

These circumstances led to some loosening of the loan requirements in order to permit a more rapid turnover of funds; this, however, was insufficient to solve the problem. A training program was subsequently initiated to modify the rigid and paternalistic management style and provide guidance in making sound loans and recovering them. With more active loan collection efforts and improved loan recovery, borrower delinquency rates, which had ranged from 45 to 71 percent of Banco Agricola's portfolio, declined to a range of 7 to 15 percent. A new attitude that alleviated the early lending fears had finally begun to develop.

Before launching the savings mobilization campaign at the credit unions, arduous preparation efforts were undertaken to offset their weak institutional structure. The whole membership had to be convinced that changes in policy and organization, particularly interest rates and collection procedures, were required. The accounting system of the credit unions needed substantial improvement; previously, they had closed their books only once a year. Partial subsidies were provided to cover added administrative and promotional expenditures.

Despite the weakness of the credit union movement in the Dominican Republic, the savings mobilization efforts at the four participating credit unions achieved substantial success in mobilizing rural savings, as shown in table 5.

The credit unions showed strong deposit growth as well as sharp improvement in loan recovery. For example, in the town of Vallejuelo, deposits

Table 5
Deposit Mobilization at Four Participating Credit Unions

Credit Unions	*December 1983*	*August 1986*
Deposits in DR$		
Santa Lucia	39,499	480,495
Vallejuelo	12,584	108,751
La Vega	84,036	223,602
San Jose	1,507,688	3,257,222
Loans in DR$		
Santa Lucia	35,709	390,501
Vallejuelo	8,008	91,337
La Vega	91,371	265,287
San Jose	1,264,075	2,833,676
Default (in percent)		
Santa Lucia	.48	.09
Vallejuelo	.70	.10
La Vega	.48	.22
San Jose	.03	.02

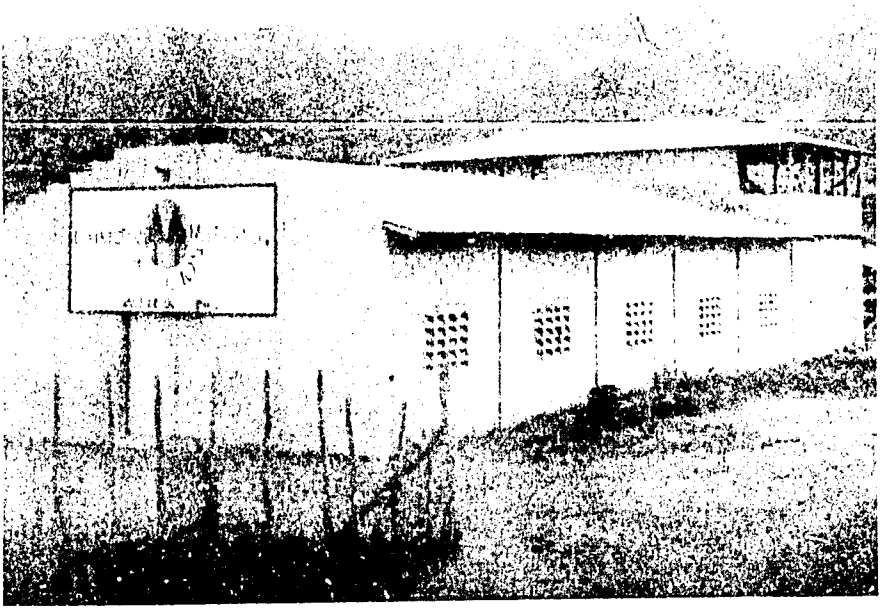
Source: Rural Savings Mobilization Project

increased more than eightfold between December 1983 and August 1986, while the loan default rate declined by sevenfold. In the town of Santa Lucia, savings deposits grew more than twelvefold over the same time period, while the default rate fell more than fivefold.

The credit unions' success at mobilizing deposits exceeded that of Banco Agricola due to greater flexibility in interest rate policies. The interest rates paid by the credit unions on deposits were much closer to those paid in the unregulated segment of the financial market. Interest charged on loans, however, remained far below that charged by financieros. Because their clients were well known, credit unions could keep loan interest rates at lower levels and still remain profitable. The close relationship between credit unions and their clients provided valuable information with which to evaluate creditworthiness and thereby lower transaction costs.

Like Banco Agricola, the credit unions were initially cautious about making loans. Conservative lending policies resulted in a buildup of excess liquidity, as was the case with Banco Agricola. The credit unions, however, were able to resolve this problem more quickly as their administrators became more adept at credit analysis.

The credit unions presently face a large demand for credit; this success has resulted in another 5-year project to expand upon the EARS savings mobilization effort by involving 50 additional credit unions throughout the country.



The Vallejuelo Credit Union participated in the savings mobilization campaign with a great deal of success. Banco Agricola photo.

Insights Gained in the Dominican Republic

1. *The combination of discussion and collaborative research, and the results of the savings mobilization demonstrations, make a powerful model for policy dialogue.*

One of the major lessons learned in the Dominican Republic related to improved methods for conducting policy dialogue. While the project in Honduras highlighted the importance of policy dialogue, the experience in the Dominican Republic clarified the process of effective communication. Moreover, the Dominican case revealed how strong involvement of the Central Bank could contribute to the success of policy dialogue. As the Dominican counterpart on the project was an official of the Central Bank, EARS was in an institutionally advantageous position to most effectively influence policy and attract the attention of monetary authorities to the special problems of rural financial markets.

2. *Savings mobilization can reduce operating costs.*

The addition of deposit services at Banco Agricola produced increased scale economies that actually made savings mobilization profitable. In fact, these economies allowed Banco Agricola to keep expanding deposit and lending services for quite a long time without substantially increasing costs. Moreover, because Banco Agricola branches felt much more responsible for

lending funds that had been withdrawn from local deposits, they were motivated to improve their own efficiency and allocate mobilized resources wisely.

3. *Rural financial market reform should realistically be viewed as a long-term effort.*

While the transformation that took place at Banco Agricola was undeniably impressive, it highlighted the fact that financial institutions with a life history of inefficiency and loan delinquency cannot be changed overnight. One of the most difficult tasks for Banco Agricola was learning how to make creditworthy loans without imposing cumbersome restrictions on borrower eligibility that slowed the lending rate. While training and technical assistance facilitated the learning process, it was realized that part of the problem related to the bank's rigid management style. Changing this style would take time.

4. *Interest rates are not the only incentive that can be used in savings mobilization.*

The volume of savings mobilized at Banco Agricola was remarkable given the low interest paid on deposits. It indicated that rural populations could be motivated to deposit their savings in a formal institution that offered low transaction costs, convenience, and security, even when interest rates were not particularly attractive.

Areas for Further Investigation

1. *Is the policy dialogue model developed in the Dominican Republic transferable to other situations?*

Implicit in the policy dialogue component of the project was the belief that profound reforms would come about only if authorities were convinced of their benefits, and not through use of leverage or conditionality. But while strong arguments were made in favor of policy dialogue, some questioned whether conditionality was always a less effective method of instituting reforms.

2. *How quickly should savings mobilization efforts proceed?*

The rapid rate at which deposit services were opened at Banco Agricola branches raised questions as to the wisdom of moving so quickly, since problems always emerge when institutional transformation is undertaken. While problems at Banco Agricola were handled effectively, other cases might require different solutions.

3. *Are noninterest incentives always effective means for mobilizing savings?*

If interest rates are lower than the rate of inflation, will other incentives be sufficient to attract depositors? This important issue requires further exploration, since liberalizing interest rates will probably be resisted in many developing country environments. If only partial liberalization of interest rates can be achieved, how much can rural financial market reform efforts hope to accomplish? At what point is it useless to attempt reform? Furthermore, what incentives in what situations are most cost effective for mobilizing savings?

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5

Rural Financial Market Reform in Bangladesh

Rural Financial Issues in Bangladesh

The EARS project in Bangladesh was part of the much larger Rural Finance project undertaken by USAID/Dhaka to initiate broad rural financial reforms and to extend an earlier and narrower effort aimed at examining the impact of raising loan interest rates. The Rural Finance project was intended to make more sweeping reforms that would affect the entire banking system.

As was the case in Honduras and the Dominican Republic, in Bangladesh the lack of viability of rural financial institutions was a major concern. In the mid-1970s, the Government of Bangladesh implemented a $50 million agricultural credit program that included the majority of RFIs. As these financial institutions became increasingly oriented toward disbursing low-cost credit, they suffered from many of the same problems exhibited by RFIs participating in subsidized credit programs in other countries. Low interest rates on loans undermined their ability to remain solvent, and the high cost of disbursing subsidized credit was not covered by the margins allowed between the interest RFIs paid for funds and the interest they could charge borrowers.

Moreover, RFIs in Bangladesh experienced high and chronic loan defaults. As lending increased due to the government's agricultural credit program, these defaults mounted. The value of outstanding loans mushroomed in relation to the value of deposits. By 1983, on the eve of the Rural Finance project, a high percentage of the rural financial bank branches in Bangladesh were insolvent due to high operating costs.

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Bangladesh: The Country Context

Bangladesh has had numerous political upheavals since achieving independence in 1971, including two assassinations of heads of state, long periods of martial law and censorship, and a multitude of strikes and demonstrations protesting government policies. Although democracy was, at least officially, reinstated In 1986 and the 1972 Constitution restored, martial law remained in effect and allegations were made that elections were not fairly conducted. As a result, opposition groups continued to create disruptions that affected the financial sector and its performance, as well as the overall economy, during the 1984–86 life of the EARS project in Bangladesh.

The ratio of land to people in Bangladesh is one of the lowest in the world. The annual population growth rate is between 2.0 and 2.5 percent; and in 1985–86, 80 percent of the total population was employed in farming. Despite increasing pressure on the land over the years, Bangladesh had a series of very good harvests in the 1980s. Nevertheless, it was still necessary to import grain; the value of cereal imports increased 132 percent in 1981–82 because of drought, fell slightly in 1982–83, and then rose again in 1983–84 and 1984–85 as a result of monsoon flooding.

Jute and tea are the major export crops. While Bangladesh provides 90 percent of the world's jute, export earnings from jute have declined consistently since 1982. World jute prices dropped 45 percent in 1985–86, with no sign of near-term recovery. In 1979 a program was introduced to improve the quality of Bangladesh tea, which in that year was Bangladesh's second largest export earner. Initially, this program led to increased export earnings from tea. In 1985–86, however, despite a 20 percent increase in the volume of total exports, export earnings decreased by almost the same percentage because of declines in world prices for commodities such as jute and tea. This slowed economic activity in the rural areas of Bangladesh while the Rural Finance project was undertaking its reform efforts.

Bangladesh has been heavily dependent on foreign aid to offset its trade deficit and fund its development programs. In 1986 foreign aid accounted for 40 percent of total government resources. Since the late 1970s, as foreign aid increasingly financed budget deficits, the contribution of domestic savings to gross domestic investment has declined. The availability of external sources of funding has provided little motivation to mobilize domestic resources. Hence, despite a relatively high GDP growth rate, the national savings rate in Bangladesh is one of the lowest among comparable low-income Asian countries.

Rural Financial Institutions in Bangladesh

Although the financial infrastructure in Bangladesh is not as developed or widespread as in many other Asian countries, there is a fairly extensive network of bank branches throughout the rural areas that offers both deposit and

loan services. Prior to USAID/Dhaka's financial sector reform efforts, however, rural banks delivered mainly cheap agricultural credit as part of a governmental agricultural development strategy. Between 1973 and 1983, the value of formal financial sector loans in Bangladesh increased by over 600 percent. While two-fifths of these loans were made to the agricultural sector, the manufacturing and wholesale-retail sectors received the bulk of loanable funds.

The rural banking structure expanded in the mid-1970s as a result of an enormous government agricultural credit program. Under this program, the Central Bank placed the major responsibility for credit disbursement on the Agrani Bank, a nationalized commercial bank whose branches were at the time urban oriented. To enable them to disburse these agriculturally targeted funds, a tremendous effort was made to expand their rural infrastructure. From 1975 to 1984, the number of rural branches increased from 648 to over 2,400, while urban branches grew from 762 to over 1,400.

The other major financial institution operating in the rural areas is the Bangladesh Krishi Bank (BKB), created in 1972 to take over the functions of the defunct Agricultural Development Bank of Pakistan. While its predecessor provided the bulk of its loans to the tea plantations, the BKB provides most of its loans to smaller farmers. In the decade between 1972 and 1982, the number of BKB rural branches increased almost sevenfold, and by 1984, 812 of its branches were located in rural areas, compared to only 102 in urban areas. Seventy-one percent of the agricultural loans provided by BKB between 1982 and 1984 were based on discounted funds from the Central Bank.

Although the expansion of the rural financial network during the 1970s and early 1980s was primarily oriented toward the disbursement of subsidized agricultural credit, there was an initial surge in rural deposits. Decentralization of the financial infrastructure significantly reduced the transaction costs of depositors. As a result, the amount of rural deposits far exceeded the amount of rural lending. However, this situation was shortly reversed. As lending activity expanded and was combined with high default rates, the monetary value of outstanding rural loans exceeded rural deposits. Between 1975 and 1985, the average amount of deposits increased 3.7 times, while the average amount of outstanding loans increased 15 times. Although deposit services were offered by the Agrani Bank and the BKB, and mobilization of private savings was considered to be part of normal banking business, insufficient attention was given to a deposit mobilization policy in rural areas and to the causes of the relatively slower growth of deposits as compared to loans.

The high default rate in Bangladesh added substantially to the amount of outstanding rural loans and endangered the viability of new branches. By 1983, just after the period of bank branch expansion, a World Bank report concluded that 67 percent of the nationalized commercial banks and 17 percent of the BKB branches in the rural areas were not viable due to high operating costs.

The A.I.D. Effort and Its Outcome in Bangladesh

In the late 1970s, an A.I.D.-funded diagnostic study reviewed the Bangladesh Government's agricultural credit program. USAID/Dhaka was concerned about the rigidity of interest rates, problems of loan recovery, and the viability of rural financial institutions. This study precipitated the design of the Rural Finance Experimental Project (RFEP) to investigate, among other things, the impact of raising interest rates on loans. While the project targeted a population of low-income farmers with less than 1/2 acre of land, it relaxed stipulations on the use of loan funds. Thus, unlike most targeted loans that stipulated agricultural use of the loaned funds, borrowers could use the loans for any purpose.

RFEP found that even when interest rates on loans increased from the normal 12 percent all the way up to 36 percent, rural households still borrowed for agricultural purposes without a substantial decline until the rates reached approximately 30 percent. As interest rates exceeded 30 percent, loan use shifted from agricultural to nonfarm activities that generally had a higher expected rate of return.

When the RFEP project ended in 1983, the Rural Finance project, of which EARS was a part, was initiated to experiment with savings mobilization and implement broader financial reforms. This broader focus was partially in response to RFEP's findings that the profound changes needed would not be produced by tinkering with the system.

Moreover, previous rural financial market projects in Peru, Honduras, and the Dominican Republic suggested that savings mobilization efforts were pointless unless RFIs were viable and had the mechanisms to recover loaned resources. While savings mobilization could help remedy loan-recovery problems by creating a close and mutually responsible RFI-client relationship, the government had to stop creating disincentives for loan repayment, interest rates on loans had to rise sufficiently to cover administrative costs, and RFIs had to learn to operate more efficiently, so that the financial system could function effectively.

The Rural Finance project was thus initiated not only to continue the efforts toward rural financial reform begun by RFEP, but also to broaden the focus from experimentation with interest rates on loans to rehabilitation of the national rural financial system. The ambitious scope of the project was supported with equally generous funding from A.I.D. The project's intent was to negotiate widespread financial policy reforms that would affect the entire banking system. While policy dialogue with the Government of Bangladesh would be undertaken, the real tool of persuasion was $75 million that would be released in three installments, on the condition that certain policy reforms were in place.

The highly politicized and extremely bureaucratic nature of the financial system in Bangladesh presented enormous obstacles to change. The Govern-

ment of Bangladesh contributed to loan recovery problems by periodically declaring moratoriums on past loan repayments and instituting loan forgiveness programs. This political intervention into the financial system discouraged responsibility on the part of both borrowers and financial institutions; some asserted that only the naive small farmers bothered to repay loans. A.I.D. and USAID/Dhaka felt that the conditionality associated with the project would support policy dialogue efforts to address these problems in Bangladesh.

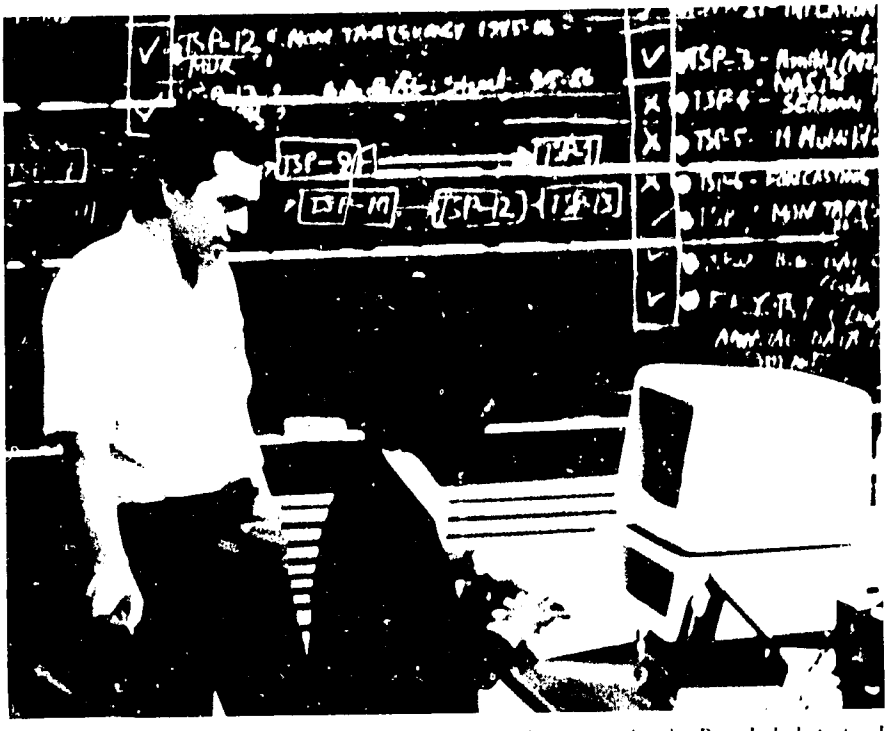
The major policy reforms effected by the project included a 4 percent service charge on loans that effectively raised interest rates from 12 to 16 percent, a 6 percent penalty charge on delinquent loans, and a restructuring of the Central Bank's rediscount rate. Higher interest rates on loans would help to cover operating costs, and higher penalties charged for delinquency would mitigate loan recovery problems. USAID/Dhaka argued that restructuring of the rediscount rate, a subsidized line of credit that the Central Bank made available to banks, was necessary since the previous low rate destroyed incentives to mobilize local savings, because it was cheaper to obtain funds from the Central Bank. Mobilization of local savings would help create responsible behavior on the part of borrowers and financial institutions and thereby improve the loan recovery rate; it would also induce banks to provide attractive interest rates on deposits.

Although these changes were not so dramatic as desired, they represented an important step toward reform. The increased loan interest rates and penalties and the restructuring of the rediscount rate communicated to banks that they were expected to take more responsibility for their own financial health, including generating loan funds by mobilizing local savings.

In order to discern positive and negative trends in the financial system resulting from policy changes and to adjust these policies accordingly, there was a continual monitoring of economic and financial indicators. While data were sometimes unavailable or difficult to obtain, three types of indicators were monitored: (1) systemwide indicators reflecting important trends in the rural financial system, (2) institution-specific indicators measuring deposits resulting from savings mobilization, loan recovery rates, transaction costs incurred by institutions, and institutional profitability, and (3) specific indicators describing the effects of policy change on the cost of credit to final borrowers and the accessibility of small farmers to RFI credit.

The monitoring activity tracked changes in the ratio of rural deposits to rural loans. As noted earlier, after the expansion of the rural banking infrastructure, rural deposits increased and exceeded rural loans until around 1982, when the ratio reversed due to rising loan delinquencies. In 1985, when the rediscount rate was raised, deposits again began to climb in relation to loans. Thus, the liberalization of interest rates had a positive impact.

Agricultural credit grew consistently in relation to agricultural GDP from 1974 until 1985, when agricultural credit declined by more than 50 percent while agricultural GDP slightly increased. The reduction in overall credit



Monitoring of macroeconomic indicators allowed the finance project in Bangladesh to track effects of policy changes on the overall performance of the financial system. Ohio State University photo.

disbursements was due mainly to credit restrictions imposed through the Central Bank by the IMF and the World Bank. Monitors felt that this reduction in disbursements might have a negative impact on the subsequent repayment of agricultural loans.

Research efforts in Bangladesh gave more attention to depositor behavior than was the case in Honduras and the Dominican Republic; this research was meant to fill gaps in knowledge concerning the deposit side of financial intermediation. Nevertheless, an analysis of operating costs of RFIs was also essential if their viability was to be improved.

Research on deposit behavior examined the composition and size of deposits, in total as well as those in rural areas. Who owned the deposit accounts? What portion belonged to the public sector as compared to private households, groups, and businesses? How large, for example, were the majority of deposit accounts held by households? In addition, this research looked at factors that influenced savings behavior. How did depositors respond to high interest rates, lowered transaction costs, and other incentives?

While the available data were not completely clear or reliable, research examining the public-private composition of domestic savings suggested that public sector deposits represented about 15 percent of rural bank deposits, and private sector deposits amounted to over 80 percent. Thus, deposits mobilized within the country were coming primarily from the private sector.

Furthermore, households were the source of about 70 percent of rural private sector deposits. Rural households not only held the largest number of rural deposit accounts, they also saved a larger proportion of their income than did urban households at comparable income levels.

Agriculturally based rural households in Bangladesh saved by necessity. First, they had to live on their savings from one harvest to the next. In addition, they needed a hedge against natural disasters and microclimatic effects such as local flooding, heavy winds, pests, and fungus diseases that occur regularly and cause substantial crop loss. Because of this latter need to save as a form of risk management, rural Bangladesh households built up capital reserves to a minimum level, and when reserves were depleted below this minimum, they again felt pressured to save.

Because rural households in Bangladesh have low income levels, the size of their deposit accounts tend to be very small. Eighty percent of rural deposits were less than 1,000 taka (US $50). Moreover, although rural household accounts were numerous and had grown substantially in number between 1975 and 1985, these small accounts of less than 1,000 taka showed very little activity.

While farmers had responded readily to the greater accessibility of financial services resulting from the banking network's expansion into rural areas, the deposit accounts often remained dormant after being opened.

Researchers investigating the transaction costs of depositors and RFIs addressed the question of why rural households were not using their deposit accounts. They found that transaction costs had the greatest influence on rural deposits. This was demonstrated by the marked response of rural households to the expansion of the rural financial infrastructure and the resultant reduced costs of having a deposit account. The proportion of total bank deposit accounts held by rural branches rose from 25 percent in the mid-1970s to 50 percent in the mid-1980s. At the same time, the number of banks in the rural areas increased, but the banking network still did not penetrate deeply into many rural regions. When bank branches opened in new areas, rural households in the general vicinity were willing to open deposit accounts. However, the long distances to these banks precluded frequent trips, and for the most part, such accounts remained inactive.

Research on the transaction costs of rural financial institutions indicated that it was expensive to open a rural branch and to manage many small deposit accounts. While rural households in Bangladesh did indeed save, it was not clear whether banks could cost effectively serve segments of the rural population that had only very limited savings capacity. Because of the high costs of managing large numbers of small accounts, those in the banking industry in

Technical assistance was an important component of the Rural Finance project in Bangladesh. Findings from research on RFI transaction costs, for example, were used to demonstrate to Bangladesh bankers how these costs can be measured. Ohio State University photo.

Bangladesh believed that profitability in rural areas was possible only if subsidized funds were supplied by an external source. The most profitable rural branch banks were, in fact, those that depended on their head offices for lending funds.

Data from a sample of loans drawn from 100 rural branches of four nationalized commercial banks and the BKB indicated not only a decline in the number and total value of agricultural loans in relation to total loans, but also a decline in the number and total value of small loans of less than 2,500 taka (US $150). Between 1979–80 and 1984–85, small loans accounted for more than half of the total number of loans made by these 100 rural branches; in 1984–85, this proportion dropped to one-fifth. Small loans accounted for 12 percent of the total value of all loans made between 1979–80 and 1983–84; in 1984–85, this proportion dropped to 2 percent. These sample data suggested a decrease in the availability of small loans after the government's agricultural credit program ended. In other words, larger borrowers were apparently more successful at obtaining subsidized loans than were small borrowers.

Staff at Agrani Bank branches discuss experiments to test the impact of noninterest incentives on deposit mobilization. Ohio State University photo.

A third research effort focused on issues related to loan recovery and critical factors that contributed to loan delinquency. Loan recovery data for the years since 1979–80 indicated a declining trend that worsened throughout the early 1980s. In 1984–85, the official agricultural loan recovery rate was down to 38 percent; in 1985–86, the rate slipped further to 25 percent.

The savings mobilization demonstration in Bangladesh involved six branches of the nationalized commercial Agrani Bank. Experiments were set up to assess three different approaches to increasing deposits. One provided a direct money reward to depositors over and above the interest rate; another entailed advertising to persuade potential depositors of the merits of having a bank account; and the third consisted of incentives for bank staff in the form of higher bonuses if they met deposit mobilization targets.

Deposit accounts at the six bank branches that participated in the savings mobilization demonstrations and incentive experiments increased in both number and size. However, the approach that gave depositors a return on their deposit over and above the interest rate was most successful in generating new deposits and accounts. Although advertising the services offered by rural banks was the least successful approach, at one branch this incentive reached distant depositors and produced significant growth in new deposits and accounts.

SAVINGS MOBILIZATION INCENTIVE EXPERIMENTS IN BANGLADESH

Table 6
Comparison of Different Experiment Models at Different Branches in the Barisal Region, February through April 1986

	Model 1 Depositor bonus	*Model 2 Advertising*	*Model 3 Staff Bonus*
Number of new accounts	376.00	23.00	105.00
Percentage of new accounts to total number of accounts	12.75	0.54	2.69
Amount of new deposits (000)	TK 591.00	TK 62.00	TK 395.00
Percentage of new deposits to total deposits	8.65	0.60	5.98
Cost per new taka mobilized			
Without interest cost	TK 0.002	TK 0.015	TK 0.008
With interest cost	TK 0.025	TK 0.025	TK 0.017
Cost per new account mobilized			
Without interest cost	TK 3.72	TK 40.22	TK 29.75
With interest cost	TK 40.05	TK 65.78	TK 65.27

Source: Field data collection and branch reports

The project in Bangladesh experimented with three different incentives to test their impact on savings mobilization. Model 1 offered a 1 percent increase in the interest rate to depositors who opened or added to an existing account over TK 500. This model produced the highest increase in number of accounts at 12.74 percent and the greatest volume of new deposits at 8.65 percent; it also proved to be the most cost effective overall. Model 2, designed to test the impact of the advertising model, produced the poorest results in terms of the growth of new deposits and the number of new accounts. Model 3, which offered bonuses to bank staff, was the least effective.

The approach that offered bonuses to bank staff for achieving savings mobilization targets was less costly per new account than the advertising model. However, it was most effective with clients living in the vicinity of the branch; its impact on more distant clients, particularly those with no previous banking experience, was minimal. Researchers concluded that this model could be used in conjunction with the advertising approach, where field staff not only disseminated information about banking services, but also were assigned to savings mobilization activities on a bonus scheme, thereby reducing the cost of the advertising model and reaping the advantages of the staff bonus incentive. In addition, a good marketing or advertising drive using existing field assistants and combining some elements of the first incentive model could

be useful in increasing the motivation of the rural populations to save in a formal financial institution.

Insights Gained in Bangladesh

1. *Rural households do save.*

In Bangladesh, research found that the vast majority of deposit accounts in rural banks belonged to households. While the size of their deposits was very small, the number and frequent use of these small accounts suggested that financial deposits for rural households were useful and could be further mobilized.

2. *Deposit accounts can be an important form of risk management for rural households.*

Research in Bangladesh found that rural households typically maintained a minimum level of savings in their deposit accounts as protection against the risk of crop loss. Interviews revealed that farmers would be willing to accept a lower interest rate on their deposits in return for a savings instrument that allowed them to buy risk protection. This not only underscored the importance of savings accounts as a form of risk management, but also suggested that RFIs could mobilize savings by offering new savings instruments that met these needs of the rural population.

3. *Expansion of the rural banking infrastructure is an effective mechanism for mobilizing savings.*

The increase in deposits resulting from the expansion of the network of rural banks in Bangladesh was dramatic. It affirmed the influence of transaction costs on deposit behavior, and suggested the possibility of further tapping the deposit potential in rural areas. Since many rural residents were still without access to financial services, greater competition among banks was suggested as a way to spur the expansion of the branch network into unserved areas.

At present, however, bankers in Bangladesh do not believe that it is financially sound to provide unsubsidized banking services to farmers. The profitability of RFIs needs to be improved in order to change these attitudes about rural banking.

4. *Political intrusion into the financial system contributes to problems of loan recovery.*

Government intrusions into the financial system in Bangladesh create strong disincentives for borrower repayment. Loan recovery remains a difficult problem that will not be solved until the government realizes the importance of accountability for both financial institutions making loans and farmers receiving them. Some policymakers in Bangladesh believe that ignoring defaults is an innocuous way of helping the rural poor. This view overlooks the fact

that loan defaults damage RFIs and ultimately hurt borrowers. Loans that are not repaid decrease the funds RFIs have available to lend and make it difficult to assure the security of deposits. Moreover, they absorb the time of bank managers and undermine the financial integrity of the bank.

5. *Noninterest incentives can be effective in mobilizing deposits.*

The savings mobilization demonstrations in Bangladesh revealed that noninterest incentives can be useful as well as cost-effective in mobilizing savings. In Bangladesh this finding was particularly important because interest rates on deposits could not be raised.

Areas for Further Investigation

1. *Is conditionality an effective means for achieving policy reforms?*

Using the leverage of $75 million achieved some success in Bangladesh, and yet it contradicted the beliefs of those who argued that policy dialogue was a more effective means for achieving long-lasting reforms. But could conditionality be useful in stimulating dialogue? Could conditionality and policy dialogue complement one another?

2. *Will rural households continue to borrow for agricultural purposes as interest rates are raised?*

The argument was made previously that rural households will continue to borrow when interest rates on loans are raised, if they have a sufficiently high-return investment. While this proved to be true in Bangladesh, as interest rates climbed beyond a certain point the use of loans increasingly shifted from agricultural to nonagricultural activities.

Does this finding suggest that high interest rates on loans can undermine agricultural development efforts? Rural households that invest in high-yielding nonagricultural activities can use these earnings for agricultural purposes. Thus, the use of loans for nonagricultural purposes does not necessarily undermine agricultural development.

3. *Does rural savings mobilization make sense when there is excess liquidity in the banking system?*

Rural deposits in Bangladesh increased during the life of the project, particularly since the inflation rate remained relatively stable. However, as lending declined due to a fall in world jute prices and jute production in the rural areas, these deposits created excess liquidity in the rural banking system. This produced doubts concerning the wisdom of future savings mobilization. Some argued that the high liquidity levels indicated that there was no further need to increase deposits in the near future. Others affirmed that savings mobilization contributed to the development of the rural financial system and to the long-term needs of the agricultural sector that would require lending funds in the future.

6

Formal and Informal Financial Markets in Niger

Rural Financial Issues in Niger

The EARS project in Niger was undertaken during 1985 and 1986 to study the nature and performance of the formal and informal financial sectors. USAID/Niamey was concerned about the impact of Niger's economic contraction in the 1980s on formal financial institutions. The decline in worldwide prices and demand for uranium, an important source of export earnings, and the enormous devastation associated with the 1984–85 drought, the worst in Niger's recorded history, wreaked havoc with the national economy.

In response to increasing domestic debt, the Government of Niger borrowed heavily from foreign donors. These borrowed funds were channeled through formal financial institutions. Banks that had formerly relied on mobilized savings for lending funds began turning to the Central Bank for subsidized funds and abandoning savings mobilization efforts. As the economic downturn progressed, funds supplied by the Central Bank to these formal institutions diminished, creating a serious shortage of funds and forcing banks to pare down their operations, particularly in rural areas.

USAID/Niamey's concern was further heightened by the mismanagement of the formal system of credit delivery, which included the national agricultural bank and credit cooperatives, and their increasingly high loan default rates as funds from the Central Bank dwindled.

Because of the embryonic development of the financial system in Niger and limited formal intermediation among regions, USAID/Niamey believed that the informal sector played an important role in rural financial interme-

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diation. Yet little was known about the nature and level of activity of moneylenders and informal savings groups. Were they providing valuable financial services to the rural population, or were moneylenders, for example, exploiting farmers by charging exorbitantly high interest rates, as was traditionally believed? The EARS project aimed to explore these questions and recommend ways of improving both the formal and informal financial system in Niger.

Niger: The Country Context

Formerly part of French West Africa, Niger is a landlocked country with a hot, dry climate. Most of the country's northern half is arid desert, while its southern half is vulnerable to rain failure. The agricultural and livestock sectors dominate the economy, employing approximately 85 percent of the country's labor force. Drought, however, has substantially reduced the productivity and relative size of these sectors.

Persistent drought and widening desertification, exacerbated by overgrazing and deforestation, have undermined Niger's attempts to become self-reliant in food. Population growth, estimated at 2.5 percent per year, has far outstripped increases in grain production. After the 1973–74 drought, grain production exceeded domestic requirements for the first time since 1970, but deficits again mounted in the late 1970s with subsequent rain failure. When drought hit again in 1984–85, the shortfall of cereal amounted to over 475,000 tons, and an emergency appeal had to be launched for food aid. Moreover, livestock herds that had only just recovered from the previous drought were again severely depleted. The emergency precipitated by the 1985 drought greatly increased Niger's dependence on foreign assistance, just as the EARS project was getting underway.

While the discovery of uranium in Niger in the 1960s provided an opportunity for economic development, soon after 1980 this opportunity was lost. World prices for uranium plummeted by 43 percent between 1978 and 1984, reducing much-needed export income.

The decline in uranium revenues combined with a devaluation of the currency led to a rapid increase in Niger's external debt and severe difficulties in repaying arrears. The IMF donated funds with the understanding that Niger would institute a number of reforms, including a more open market economy. A general audit of state and parastatal companies in 1984 revealed widespread mismanagement and large deficits. As a result of pressure from international organizations, the government announced that a number of parastatal companies would be privatized.

Nevertheless, in 1985 when the EARS project was initiated in Niger, the government and the parastatals still largely controlled the marketing of agri-

cultural products and the distribution of credit to rural areas. The highly bureaucratic government commonly disbursed political patronage to control the formal financial system. This political intrusion as well as an unwillingness to give financial institutions any degree of autonomy made reform of the formal sector difficult.

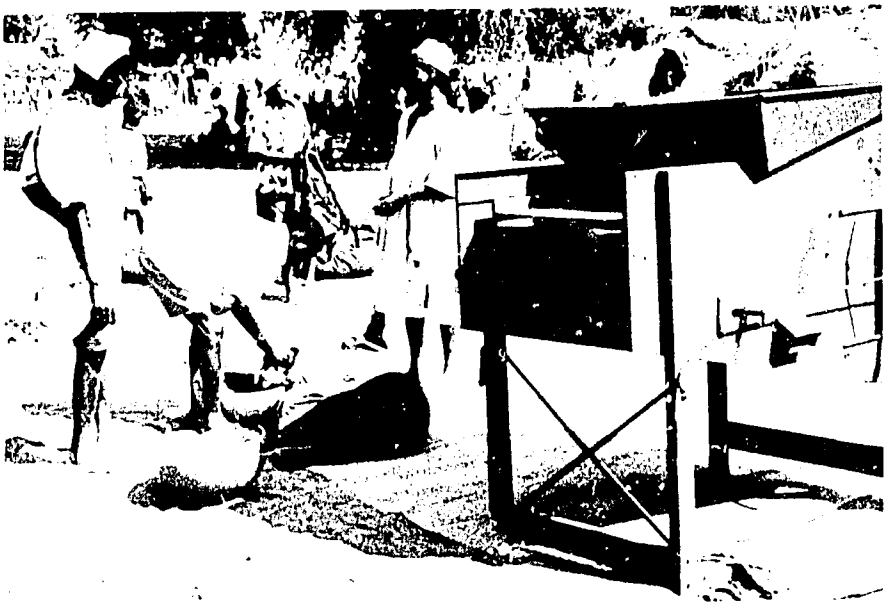
Rural Financial Institutions in Niger

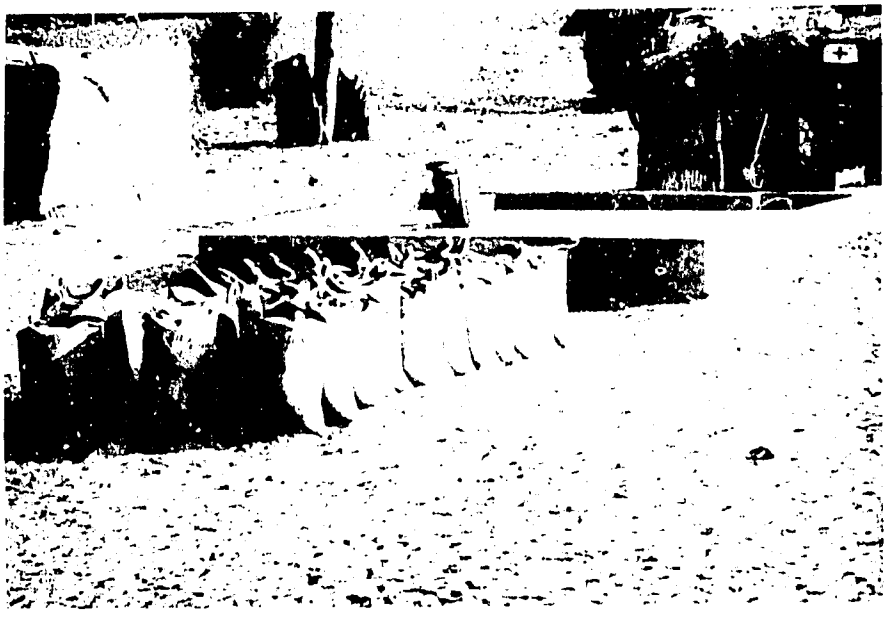
The formal banking system of Niger is comprised of nine banks and the Banque Centrale des Etats de L'Afrique de L'Ouest (BCEAO), the central bank jointly operated by several West African countries. Three of Niger's internal banks are considered to be public development banks, while the other six are private commercial institutions. During the years of the EARS project in Niger, the Caisse Nationale de Credit Agricole (CNCA), the national agricultural bank, specialized in financing rural economic activities. With one exception, there was no government participation in the ownership of commercial banks; however, these banks increasingly served the government and the parastatals.

The CNCA was created when the Union Nigerienne de Credit et de Cooperation (UNCC) was separated into two separate bodies: the CNCA and the Union Nationale Cooperatives (UNC). The UNCC was originally established to provide greater central control over cooperatives, to oversee the distribution of credit to rural areas, and to serve a number of other functions ranging from input supply and seed distribution to management of development projects. In 1980 the CNCA was formed to take over the credit function from the UNCC; other agencies were formed to take over former functions of the UNCC, leaving the UNC more focused on the promotion and administration of cooperatives.

The CNCA's role as the agricultural credit institution was beyond its institutional capabilities. With limited staff, it was forced to work through other institutions to fulfill its task of distributing credit widely throughout the rural areas. To a large extent, the CNCA channeled credit through the UNC to village level cooperative groups called Groupement Mutualiste Villageois (GMs). In addition, the CNCA acted as a channel through which Productivity Projects (PPs), or public investment projects, funded largely by foreign donors, distributed credit. While the PPs generally consisted of extensive infrastructure investments, especially irrigation schemes and new technological packages for agricultural producers, they also provided credit for farmers who participated in the projects.

The CNCA's lending funds came primarily from the Central Bank's rediscount line and from foreign donors, often through PPs. Like other public financial institutions in Niger, the CNCA was largely a conduit for debt fi-





nancing of government expenditures for public enterprises and an administrative mechanism for transferring funds to selected clientele. Loans disbursed by the CNCA went to farmers regardless of the amount of land they owned, their success at farming, or their history of repayment.

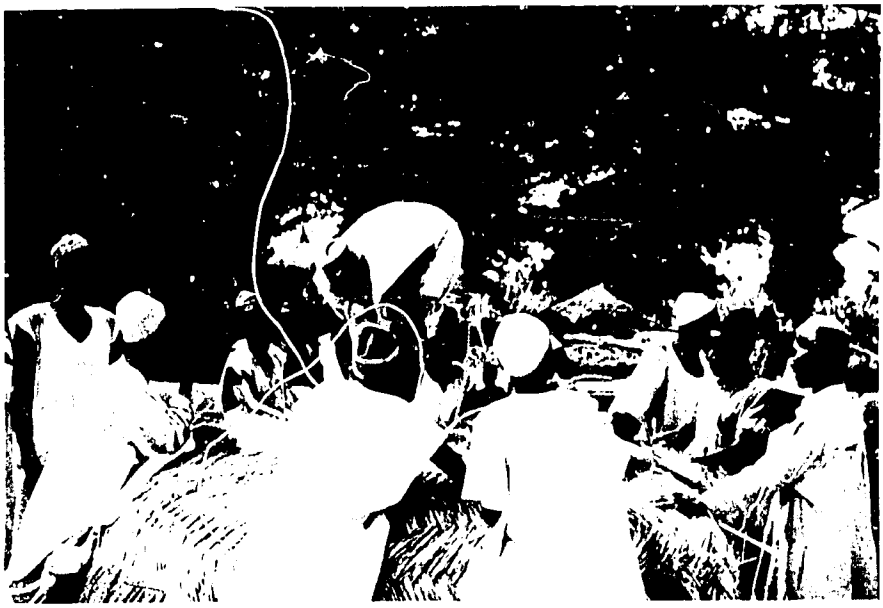
The CNCA in effect served as a budgetary source of funding for the government parastatal that bought agricultural produce as well as for other parastatal agencies that sold fertilizer and plows to farmers. These parastatals clearly had a vested interest in keeping the CNCA under the government's control and protested any reforms that would make the CNCA a true intermediary with greater financial autonomy and independent loan evaluation capability.

There were approximately 1,200 farmer cooperatives assisted by the UNC in Niger. During the early years of the former UNCC, local units were required to report directly to central headquarters. Although cooperatives were converted to locally managed voluntary membership groups in 1965, the UNC continued to set the rules and make the critical decisions. Cooperatives worked with UNC agents, who played a major role in determining credit needs and credit disbursement. While UNC field agents ostensibly kept records on loan allocations and repayments, in reality these records were maintained poorly, if at all.

The basic unit of the cooperative structure at the village level is the GM. Membership is open to all villagers and is essentially automatic. A cooperative is comprised of 5 to 10 GMs, of which there are about 10,000 throughout Niger. Almost 90 percent were created after 1974, and two-thirds after 1982. GMs bear most of the transaction costs associated with lending and borrowing in the institutional credit network. Since they are the institutions that establish direct contact with borrowers, they also tend to incur the costs associated with establishing the RFI-client relationship.

Informal financial markets in rural areas are, for the most part, very circumscribed geographically, often limited to a village or a set of villages. Intermediaries consequently circulate available funds in very limited geographic areas and often operate in areas formal financial institutions are unable to reach. The relative isolation of much informal intermediation in Niger protects it from intrusion by the formal financial system and by the central government.

The informal financial sector intermediation consists of "tontine" savings groups and moneykeeping services that are provided at the village level. Tontines are informal savings societies and are found within all ethnic groups and geographic settings. They range from small groups of three to five members to larger groups of 40 or more. They have developed among very-low-income producers as well as among sophisticated commercial traders and exist in both urban and rural areas. In some cases, tontines have very rudi-



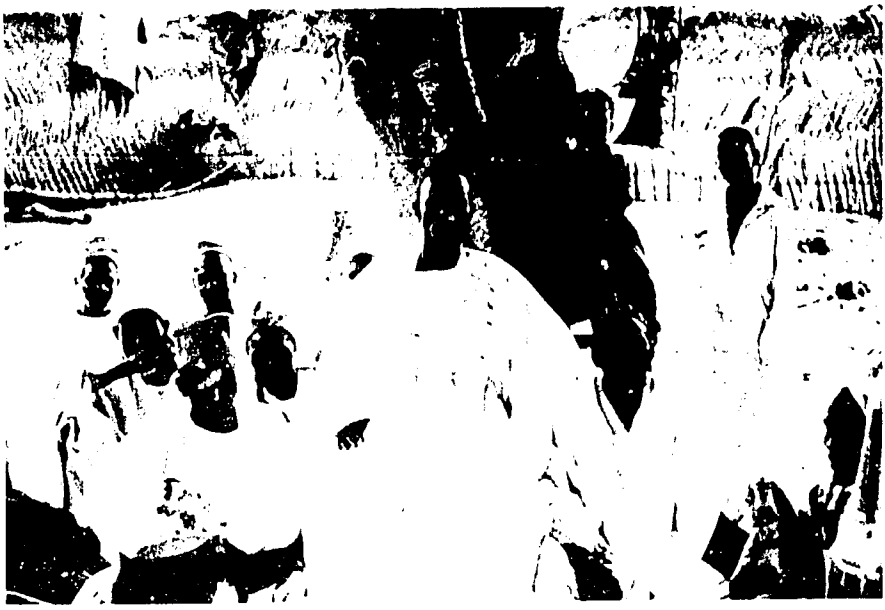
The approximately 1,200 farmer cooperatives in Niger are fairly widespread. They are both financial and, as these photos of members of the Dad'in Kowa coop show, marketing-production oriented. Robert Charlick photos.

Tontines are most often headed by women. This tontine head also sells small hardware in the open air market. Ohio State University photo.

mentary rules of organization and, in other cases, they have more formal rules and obligations.

Within the tontine, savings are collected on a rotational basis with each member making a uniform weekly, biweekly, or monthly contribution. In turn, each member is given the opportunity to obtain a loan. Contributions to the common fund are expected to continue throughout the life of the tontine, until all members have had an opportunity to receive a loan amounting to the value of their total contribution. Completed tontines are usually sequentially renewed for another cycle of activity.

Moneykeepers also play an important role in informal financial activities at the village level. They must have two principal qualifications: a record of personal honesty and fairness in dealings with people in the village and economic security. Their clientele include peasant farmers, herders, village chiefs, housewives, and sellers of crops and livestock. This clientele turns to the moneykeeper for a number of purposes—to get money out of their homes and into the safekeeping of other hands where it is not immediately visible and available to family members; to provide a convenient repository where clubs and village associations can keep their collective funds; and to purchase goods on their behalf in other locales. Since moneykeepers do not pay their



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clients a fee for holding money, depositors are not motivated by the promise of interest earnings.

The A.I.D. Effort and Its Outcomes in Niger

Economic recession and the subsequent financial contraction seriously affected formal financial institutions such as the CNCA. After 1980 a marked increase in loan delinquency and a decline in overall bank profitability were evident. Funds from the Central Bank and foreign donors were less available, and with the decline in private sector deposits, the CNCA and other government- and non–government-owned banks had a difficult time remaining solvent. In response, financial institutions pared down their operations, particularly in the rural areas, thus increasing the already-existing urban bias of the formal financial system.

In 1985 USAID/Niamey was concerned with microeconomic questions about the viability of Niger's rural financial institutions and the availability of credit for agriculture, as well as the macroeconomic impact of the declining economy on Niger's financial system. The EARS project was initiated to examine the operation of the financial system, pinpoint the major problems, and come up with recommendations for making the system more viable. The objective in Niger was not to mobilize rural savings or initiate financial reform, but rather, to investigate and analyze the nature and performance of formal and informal financial institutions as a first step before launching any new policy initiative in rural finance.

EARS began by studying the macroeconomic environment of Niger between 1980 and 1985 and documenting the development and deterioration of the financial institutions. The predominant role played by public sector investments and Productivity Projects in the rural sector was also investigated.

The macroeconomic environment in Niger displayed clear signs of economic decline after 1980. As the country's terms of trade deteriorated with the drop in the world price for uranium, budget deficits accelerated from 3.2 percent of GDP in 1979, to 6 percent in 1980, to 10.9 percent in 1981, and then declined somewhat to about 7 percent in 1983 and 1984. Despite decreased export earnings, the government continued to spend large sums of money to support its five-year development plan. In 1982, the net position of the government shifted from that of creditor to debtor. The debt position of the country was worsened by the food crisis resulting from the 1984–85 drought.

Increasing domestic debt had consequences for the financial system; it changed the composition of sources of funds and, in particular, increased foreign borrowing. Before 1981, the treasury and private-sector deposits were an important source of funds for the banking system. Domestic deposits grew

faster than domestic credit and banks were meeting demands for credit by mobilizing domestic deposits. Between 1982 and 1985, this situation was reversed; interest rates on deposits fell and banks substituted funds from the rediscount lines of the Central Bank as a source of funding for credit. It was cheaper and easier to obtain external funds than to mobilize deposits from the public, which had smaller savings as a result of the recession and were less motivated to deposit them in banks due to lowered real interest rates. The result was declining profitability in the banking system and a reduction in the scale of banking operations.

Research on the aggregate performance of the banking system showed that by 1985 a large proportion of the banks were involved in lending to public or semipublic enterprises. These borrowers usually did not meet normal creditworthiness criteria and tended to create a large amount of bad debt. For example, the Banque de Developpement de la Republique du Niger (BDRN) was created to support government-sponsored industrial development projects. Only half of these public project loans were repaid, and today the bank has difficulty attracting resources. Without appropriate incentives and sanctions, there is little hope of making BDRN a viable financial institution.

The banking system increasingly served public enterprises at the expense of the private sector. The decline in private deposits and increase in public loans hampered the development of a mutually accountable bank-client relationship in which borrowers would be required to show creditworthiness. Increased reliance on foreign borrowing and on the rediscount lines of the Central Bank compounded the problems by allowing banks to operate inefficiently.

Study of the formal financial sector revealed that, essentially, no formal banking system served rural Niger. What existed instead was a high-cost system of credit delivery operated by the CNCA, the UNC, and other parastatals. The banks in rural areas were mere conduits for funds to public enterprises. Rather than intermediating between savers and borrowers, rural banks were retailers for external funds.

The impact of foreign-funded public investment project and PPs on the rural sector during the first half of the 1980s was examined and found to be the single most important source of resources for the rural economy. Most public investment took the form of net transfers of resources; only a small portion of rural development projects included credit components. This credit was given at low cost in order to reduce the risks of adopting a new farming technique.

A significant portion of foreign donor funding was used to support government institutions involved in Productivity Projects and thus, to build up institutions involved in Nigerien development. Each PP normally established its own administrative structure, the operation of which used up a significant proportion of total project costs. Thus, each project operated with its own

team, its own infrastructure, and its own scheme for delivering project services, which included credit. With approximately 30 foreign donor agencies on more than 80 development projects in Niger at the time of EARS' implementation, rural development efforts were not only disjointed and costly, but also resulted in wasteful duplication of infrastructure, services, and activities.

Moreover, this approach to rural development, with its enormous administrative structure, adversely affected the institutional efficacy of the formal credit system and undermined the performance of the CNCA. The credit components associated with PPs generally used the CNCA to channel funds to targeted groups. These targeted loans involved complicated and costly procedures that only increased the CNCA's already high operating costs. The performance of the CNCA also was compromised by the PPs' use of credit as an input rather than a product of intermediation. This view of credit tended to deemphasize repayment, creditworthiness, and financial viability.

Since the CNCA was not a true intermediary, there was no financial intermediation of PP investment funds in rural areas. Each development project worked in relative isolation, with no financial intermediation and few spillover benefits beyond the immediate area. The returns generated by capital transfers were stimulated by capital transfers related to public investment and donor activity; the wages and salaries of public employees were funded by rural development projects; and the revenues obtained by contractors and workers, by agricultural input suppliers, and by suppliers of consumer goods, all constituted flows of capital that did not enter Niger's formal financial system. As a consequence, PP development efforts generated only a fraction of the benefits they could have yielded for the rural population if the same funds had been intermediated by formal financial institutions within the region. Fortunately, informal financial networks were able to handle some of this project-induced liquidity through their savings and credit systems.

At the microeconomic level, the performance of the CNCA and the savings and credit activities of informal moneykeepers and tontines were studied. Research at the CNCA focused on loan recovery and transaction costs, which are indicators of financial institution performance. More information about the magnitude and causes of high transaction costs and loan defaults would help investigators explain the declining performance of the CNCA in serving the rural sector.

Research on CNCA's loan recovery history revealed problems associated with the indirect system of credit delivery, of which the CNCA was a part. Because the PPs used the CNCA to channel funds to farmers while controlling loan-allocation decisions, the CNCA suffered from disbursements and defaults over which it had little or no control. Yet, with limited staff, the CNCA was forced to turn to the PPs for help with both credit disbursement to and loan recovery from farmers. Inherent conflicts of interest in this arrangement clearly weakened the CNCA's ability to manage and recover loans. The PPs

borrowed from the CNCA and also assumed the role of credit officer and loan collection agent for the CNCA. Moreover, since the PPs transferred loans from their books to those of the CNCA, they had little incentive to invest in mechanisms that would assess resources in decisions on creditworthiness or facilitate loan collection.

When the CNCA attempted to gain control over its growing loan recovery problems in 1981–82 by enforcing a more aggressive repayment policy, the PPs managed to divert the resources from which their loans were drawn to other financial institutions. Between 1983–84 and 1984–85, the number of loans made by the CNCA declined because it turned down many prospective borrowers who had poor repayment histories. However, while the number of loans outstanding decreased, nevertheless, the number of loans classified as "doubtful" tripled, pushing the CNCA into an even deeper financial crisis.

The CNCA's poor repayment performance resulted from its inability to develop the required managerial skills and appropriate procedures to manage its loans. This poor performance, however, was a consequence of the government's use of the institution as an administrative conduit to service other institutions with funds from external sources. Between 1979 and 1983, the CNCA obtained an average of 44.7 percent of its lending funds from the Central Bank's rediscount lines, and 20.1 percent at subsidized rates from international donors. As was learned in Honduras and the Dominican Republic, this composition of borrowed funds does not foster development of skills required to mobilize private deposits or collect loans. The CNCA transaction cost studies found that loan administration costs associated with the CNCA's lending to cooperatives amounted to 9.5 percent. Because of its history of high default rates, however, the CNCA had to pay a substantial "risk premium," which amounted to a surcharge on the cost of lending funds. When the price of the premium was added to loan administration costs, the CNCA's total transaction costs equalled more than 35 percent of the value of total funds lent. By any standards, this was a very high cost of lending.

Normally, financial intermediary transaction costs are incurred to mobilize deposits, evaluate creditworthiness, and disburse, monitor, and recover loans. Yet the CNCA and the entire institutional network for agricultural credit, including the UNC, in effect performed only loan disbursement activities.

Even though the credit delivery system administered by the CNCA did not include a complete set of banking functions, transaction costs were higher than those recorded in development banks of other low-income countries. Overall operating costs were so high that if the CNCA was given the task of disbursing credit to the rural sector amounting to a hypothetical $30 million per year, it would incur losses of approximately $10 million per year.

The structures through which the CNCA disbursed credit included the UNC at the top of the structural hierarchy and village-level GMs at the lowest level. Transaction costs were examined at the village-level GMs in order to

Surveys, like this one, at village-level cooperatives (GMs) have enabled researchers to determine levels and components of transaction costs. Ohio State University photo.

capture the transaction costs of the institutions that had direct contact with borrowers. The GMs' costs, which consisted primarily of time spent in meetings at the village cooperative and travel expenses, were remarkably low. While the modesty of these costs demonstrated the advantage of group borrowing, they also reflected cooperatives' deficient loan procedures, poor disbursement documentation, and limited loan recovery efforts. In other words, their costs were low partly because they did not practice and thus pay for sound banking procedures.

Microeconomic research at the household level documented the access to formal and informal financial services and the terms, conditions, and costs associated with the use of such services. Household surveys conducted in mid-1985 showed that farmers had limited access to institutional credit. Between 1981 and 1985, only 54 percent of the households included in the survey had obtained at least one loan, and a mere 4 percent had regular access to credit. The percentages of those receiving loans were exaggerated, moreover, since household members included small seed loans in their responses. Small seed loans could be better described as routine input deliveries in which small quantities of seed were distributed with a minimum of formality.

Because of their limited access to formal credit, farmers relied on informal loans from relatives, neighbors, and traders. Over 50 percent of the

household sample borrowed funds from relatives; 30 percent mentioned that they had borrowed from friends and neighbors; and 20 percent included traders and merchants among their sources of informal credit.

Two types of formal loans were most commonly made to the sample households: equipment loans and seed loans. Research on the conditions and terms of these loans revealed that almost all respondents were fully aware that their loans had to be repaid; however, in about 75 percent of the cases, they did not know or recall the rate of interest to be paid on the loan. While there were no collateral requirements for these loans, having access to land was a condition to receive a loan in 40 percent of the cases. Moreover, equipment loans would typically require a contribution or down payment by the beneficiary. This down payment averaged 12.5 percent of the loan value.

The transaction costs of formal borrowing at the household level included two types of costs: travel expenses to other locations to negotiate, receive, or repay a loan, and productive time lost to participate in the loan process. The total average transaction costs for equipment and seed loans combined were 2.3 percent of the loan value. These transaction costs were low by most standards; studies conducted in other developing economies found transaction costs to be as high as twice the level of the interest rate. These low costs presumably reflected an incipient characteristic of the credit system, rather than a highly efficient operation. Most of these costs were generated at the disbursement stage, reinforcing the impression that the Nigerien credit network performed primarily input delivery functions.

Examination of the transaction costs associated with informal borrowing at the household level revealed that these costs were low relative to the average loan amount. Only 14 percent of the households sampled incurred any cost at all, and of these the average transaction cost amounted to about 21 percent of the loan amount. This analysis of transaction costs, however, was distorted by the fact that less than one-third of the farmers who received informal loans or assistance considered these as credit to be repaid.

Within the informal sector, surveys investigated the role and importance of tontines and moneykeepers at the village level. Based on this research, recommendations were made on how to improve financial intermediation in the rural areas.

Research on the informal financial sector documented a network of wholesale and retail merchants, tontines, and moneykeepers who provided a wide range of deposit and credit services at the village level. Moreover, these informal intermediaries offered untargeted short-term loans, while the CNCA offered one-time-only, long-term loans that small farmers often saw as too risky and burdensome. The only alternative to informal deposit services in the rural areas surveyed was a small number of branches of BDRN branches of the post office network.

Wholesale and retail merchants at the village level for the most part had easy access to financial credit for their operations. Wholesalers largely secured

credit through banks, while retail merchants obtained their credit from wholesale merchants. In turn, these retail merchants made loans to their customers and thus became financial intermediaries. In this way, the funds flowed down a hierarchy from bank to wholesaler, to retailer, and to villager.

Surveys aimed at monitoring informal savings activity found that the average size of deposits held with village moneykeepers was substantially larger than that of deposits at the post office branches. A wide seasonal swing in the demand for moneykeeper services was also revealed. Total deposits held by 56 moneykeepers surveyed in 22 villages varied from $34,000 to $79,000 during the year. Both figures represented an unexpectedly high volume of deposit activity.

Over three-quarters of the moneykeepers surveyed offered loan as well as deposit services. While some moneykeepers made loans as high as $1,300, the average loan value was $144, which was, in any case, greater than the average 1985–86 CNCA loan. Moneykeeper loans were largely for consumption purposes and ceremonial obligations such as weddings. The size of an individual's loan was related to the size of that individual's amassed deposit, indicating that deposits were regarded as implicit loan collateral.

In effect, moneykeepers were rural financial intermediaries who used funds mobilized from depositors to make loans to borrowers and thus circulated liquidity from surplus to deficit households within the village. It should be noted that the moneykeepers who were interviewed denied that they used deposits for lending funds. Nevertheless, since money is fungible, deposits could easily be merged with other funds to form a pool of loan resources. Despite their denials, the moneykeepers very likely were acting as financial intermediaries.

Many tontines, predominantly headed by women, also existed at the village level. The size of the tontines surveyed varied widely, as did the level of contribution at each rotation. Monthly contributions of individual tontine members ranged from a low of $1 to a high of $105. During life cycles of only 2 months to a year, the 56 surveyed tontines circulated an impressive total of $72,000.

Based on research of the formal and informal sectors in Niger, recommendations were made on how to foster financial services in the rural areas. Documentation of the poor performance of the banking system and the deleterious macroeconomic environment in which it operated suggested that expansion of the formal banking system was unwarranted, at least until these banks regained their former levels of activity and rebuilt their base of private deposits. Moreover, the formal financial system in Niger was overly burdened with public sector loans and inefficiencies that needed to be addressed before expansion was considered.

After extensive analysis of the operations of the CNCA, recommendations were made that it be closed because of its lack of viability and the rigidity of its bureaucratic structure. The UNC, the GMs, the PPs, and the parastatals

that made up the credit delivery system in the rural areas had no incentive to change or to contribute to the efficiency of the CNCA.

Clearly, the PPs were not a long-term solution. They targeted their loans and emphasized productivity over creditworthiness, thus compromising their own financial health as well as that of the CNCA. Nevertheless, for the moment, the delivery of inputs, including credit, through the PPs was concluded to be the least distorting solution in a longer term strategy for the development of sound financial intermediation in the rural areas. The credit programs of the PPs were a convenient stopgap means of servicing the short-term credit needs of farmers participating in these projects. They were particularly convenient because no strong vested interest existed to keep them functioning as a long-run institutional solution to financial intermediation. Thus, the credit programs of the PPs would not hamper the eventual emergence of proper RFIs.

The only meaningful financial intermediation taking place in the rural areas of Niger was in the informal sector. In addition to handling deposits and loans directly, the tontines and moneykeepers successfully circulated money generated by the PPs and other local economic activities. Researchers concluded that this informal savings and loan activity could form the base for cooperatives or credit unions at the village level.

By broadening the financial base of activity to a larger membership than could be handled by tontines or moneykeepers, cooperatives or credit unions could build on the current informal system. This broader base would serve to integrate currently fragmented markets; it would allow financial intermediation across a larger geographic area, linking numerous villages and encompassing a larger number of savers and borrowers. Intermediation within this expanded geographic area would provide a larger base for savings mobilization and a much large · pool of funds from which to make loans. This, in turn, would allow farmers to increase their debt capacity and therefore make larger investments that might yield higher returns. The end result would be more efficient financial intermediation and allocation of financial resources that could better contribute to rural development in Niger.

Insights Gained in Niger

1. *Political intrusion undermines the viability of the financial system.*

Research in Niger again showed the damage done to the financial system by using it as a tool for disbursing political patronage. The CNCA was largely an administrative mechanism for transferring funds to selected clientele. It effectively served as a budgetary source of funding for government parastatals that demanded funds from the agricultural development bank and then routinely reneged on repayment.

2. *Reliance on external funds can destroy the viability of financial institutions.*

Because the funding sources of the CNCA were dominated by government rediscount lines of credit and international donor funds, the bank became borrower-dominated,in that all loan procedures and administrative practices were designed to favor borrowers' interests. As a result, it did not develop skills for creditworthiness analysis or loan collection.

3. *Informal intermediaries can provide valuable and fairly priced financial services to rural areas.*

In Niger it was found that the interest rates charged by moneylenders generally reflected the risks of lending to small farmers and the cost of maintaining sometimes very small deposits. Moreover, the transaction costs associated with informal borrowing were considerably lower than those associated with borrowing from a formal financial institution. Because of these low transaction costs, the costs of informal loans, which included both interest and transaction costs, were less than those of formal institutions, despite their lower interest rates.

The value of services offered by the informal sector was also evidenced by the impressive amount of deposits mobilized by moneykeepers and tontines.

Areas for Further Investigation

1. *Are there disadvantages to integrating the formal and informal financial sector?*

If the government perceives the informal financial sector as a source of significant funds, will it then attempt to control it for its own political purposes? Perhaps the informal financial sector is so successful in Niger because it is so isolated from the politicized formal sector.

7

Guidelines for Addressing Rural Finance Issues

This book shares A.I.D.'s innovations in rural finance and discusses the lessons learned from implementation of these innovations by the EARS project. To help project designers address rural financial matters in the most effective manner, this chapter translates these new approaches into project guidelines.

The discussion so far has focused primarily on rural financial development and efforts to reform rural financial markets. As in the past, however, project designers will often be asked to target specific agricultural needs and populations. In an attempt to meet the diverse needs of project designers, this chapter is organized with two project objectives in mind: (1) strengthening rural financial markets, and (2) targeting credit to agriculture.

These are discussed in turn in the following two sections. In each case, the two basic issues confronting a project designer in a particular country are, is such a project necessary and viable, and if so, what are the key considerations. Each section presents specific questions through which these issues are addressed for that type of project, and discusses the significance of the possible answers.

Designing a Project To Strengthen Rural Financial Markets

Is a project to strengthen rural financial markets necessary and viable?

1. *Is the macroeconomic and political environment conducive to the development and sustainability of viable rural financial markets?*

The macroeconomic and political environment is critical to the viability of rural financial markets. Policies that negatively influence interest and for-

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eign exchange rates and allow governments to finance public deficit spending with borrowed domestic credit make rural households unwilling to hold their savings in financial assets and render the rural financial system inoperable. If rural financial institutions are unable to mobilize savings or protect their assets from depreciation, rural financial market reforms may be either impossible to implement or unsustainable. Ultimately, governments that use the financial system as a political tool undermine the development of rural financial markets.

When the real rate of interest is negative because the inflation rate is high relative to interest rates, several problems can arise. First, evidence suggests that the lower the real rate of interest, the more loans made by RFIs will be concentrated in the hands of relatively few borrowers. RFIs that operate in an environment of low or negative real interest rates will tend to make a small number of large loans to wealthy borrowers in order to protect their viability. When inflation is high and real interest rates on loans are negative, the value of loan principal and interest payments depreciates over time, generating RFI losses in terms of purchasing power. The demand for such loans will probably exceed the supply of funds. To lower their lending costs, RFIs will be motivated to increase their loan size and steer loans to the most solvent borrowers.

Second, the lower the real rate of interest, the more difficult it will be for RFIs to mobilize local savings unless they can offer noninterest incentives. If RFIs could reduce depositor transaction costs, for example, this could compensate for the income lost. However, if inflation is too high relative to interest rates, savers will be unwilling to hold their savings in deposits, and RFIs will be left without lending funds and, therefore, unable to operate.

Third, capital flight can result from negative real rates of interest, thereby diminishing the supply of loanable funds in the domestic financial system. Rural households that do not have sufficient funds or access to the proper channels to invest in foreign banks will likely invest their savings in nonfinancial assets in order to protect their surpluses from depreciation.

Similarly, exchange-rate policies that overvalue domestic currencies make foreign currencies relatively inexpensive. This produces an incentive to buy foreign currency and goods as a form of savings or investment, also draining funds from the domestic financial system.

Public deficit spending financed by domestic credit can crowd out private-sector banks that are unable to offer sufficiently high interest rates to compete with government demands for funds. The consequence of such crowding out is often a drop in credit available to private sector activities, including agriculture. In severe cases, this crowding out can leave commercial banks without loanable funds, and, therefore, unable to intermediate or remain solvent.

The political environment also has a significant impact on the viability of financial markets. When political unrest diminishes confidence in the government, farmers are unlikely to invest their savings in formal financial institutions; and yet the financial system cannot operate unless savers are willing to hold a portion of their savings in financial savings instruments. Moreover, a government that derives a significant portion of its power from handing out monopoly privileges to chosen constituencies will not be receptive to the development of financial markets that erode those privileges.

The question that project designers must ask themselves is: How severely will the macroeconomic and political environment constrain proposed reform efforts? According to David Cole of the Harvard Institute for International Development, if project efforts are heavily dependent on a favorable macroeconomic and political environment, then reform endeavors should first concentrate on that environment and let financial development follow. If that dependency does not exist, it may be possible to improve certain aspects of the financial system without waiting for the overall environment to improve.

2. *Is there an economic basis for formal rural financial markets?*

Are there sufficient resources in the rural area to warrant a rural finance project? If the rural economy is primarily subsistence; if the infrastructure is so inadequate that farmers are unable to market what surpluses they have; if the soils are so poor as to severely limit productivity; or if policies create disincentives for investment in agriculture, there may not be a sufficient economic base for an expanding rural economy or viable formal financial intermediation. The strength and growth potential of financial institutions depends on the solvency of their clients. Low incomes and repressed profits diminish farmers' capacity to save and place surplus funds in formal financial institutions. They also reduce farmers' opportunities for profitable investments, willingness to borrow, and ability to repay outstanding loans. Before rural financial market reforms can be meaningfully undertaken, the basic economic environment may need to be improved and stable rural financial markets allowed to evolve naturally from a growing rural economy.

If the main problem is policies that are biased against the agricultural sector, making farming an unprofitable investment, rural savings will tend to flow from rural to urban areas, toward higher rate of return investments, thereby benefiting urban rather than rural development.

Given a rural-to-urban flow of funds, a rural financial market project that includes savings mobilization can still make sense. While the flow of rural savings to urban areas may not be in line with immediate rural development objectives, it does provide farmers with the highest return on their deposits. If development objectives are to increase agricultural investments, the best solution is to target efforts toward policy reform. Curbing savings mobilization

efforts or restricting the flow of funds will further diminish farm incomes. The improved viability of rural financial markets that accrues from local savings mobilization combined with the higher return that farmers receive from deposits invested in the highest yielding activities strongly supports the mobilization of savings, even when rural savings flow to urban areas.

3. *Is there an existing structure of financial institutions to intermediate in rural areas?*

In some cases, the problem is not a shortage of savings, but the lack of a financial system able to provide the rural population with financial services that meet their needs. In some instances, rural financial institutions may suffer from such extreme inefficiencies due to dependency on external funds, rigid bureaucratization, and political intrusion that institutional reform efforts may be a waste of project resources. In Niger, the CNCA was so burdened with such problems that the rural finance project recommended it be closed. In Zaire, the operating costs of the Banque de Credit Agricole (BCA), equaled over 100 percent of loans to agriculture in 1984. Research concluded that BCA could not exist without regular external capitalization and could never be expected to become a significant mobilizer of domestic credit.

Rural regions exist where formal financial institutions cannot sustain operations because of high transaction costs and low savings and borrowing capacity, and where the informal sector may be the only form of intermediation upon which a rural finance project can build. In Niger and Zaire, A.I.D. researchers suggested that the credit union systems in rural regions be integrated with the informal system to permit more efficient allocation of resources over a wider geographic area and to spread risks among a larger number of households engaged in a variety of occupations with diverse vulnerabilities. A rural financial market project could facilitate this integration and thereby improve the viability of rural financial markets.

Where the formal financial system is more developed and the policy and political environment allows for the strengthening of RFIs, project designers need to determine whether policymakers and local bankers can be convinced of the benefits of savings mobilization and other sound banking policies. Are policymakers willing to raise interest rates to positive real levels and initiate savings mobilization campaigns? Are they willing to allow RFIs to diversify their portfolios to include, perhaps, urban as well as rural loans? Are local bankers willing to learn and adopt new techniques and procedures for record keeping and loan recovery and monitoring? Are they willing to learn how to make creditworthiness decisions? Such changes clearly require the support of those in power both at the national and institutional levels.

If a rural financial market project is necessary and viable, what are key considerations for project design?

1. *How can policy dialogue best be conducted to enhance the macroeconomic environment?*

The successful model of policy dialogue developed by A.I.D. in the Dominican Republic has three basic requirements. First, because financial sector policy changes come about slowly, and, once made, can have a delayed impact, policy dialogue initiates need to be long term and consistent.

Second, dialogue should be conducted on three levels—with international donors; with officials and professionals of central banks and related institutions; and with private financial institutions. Dialogue with donors can bolster coordination of financial market reform proposals and prevent one agency from working at cross-purposes with another. This is particularly critical when financial market reforms modify interest rate structures and reserve requirements, for example, since the effect of such changes can be diluted by the inflow of subsidized funds from other donors.

Third, collaborative research, workshops, and seminars are important to disseminate evidence and generate support for the necessity and benefits of reform and to build an in-country expertise in financial issues. Research should be carried out from a secure and influential institutional base, such as the economic research division of the central bank, and the collaboration of local bank staff should be employed as appropriate. This allows opportunities for professional interaction and further builds valuable domestic support for financial reforms suggested by studies. Moreover, collaborative research generates a cadre of financial experts with an understanding of rural financial issues who will be committed to sustaining rural financial market reforms beyond the life of the project.

Workshops and seminars attended by local researchers, professionals, and officials from the central bank, ministries, and financial institutions are important opportunities to disseminate research findings. They are important occasions for open, professional debate of rural finance issues that reconsider traditional views about financial policy, causes of financial market distortions, and social costs and equity consequences of overregulation of financial institutions.

Policy dialogue concerning rural financial market reforms can involve issues ranging from procedural changes in financial institutions to central bank regulations, interest rates, and other reforms that impact on macroeconomic policies. As concluded by the A.I.D. evaluation of the EARS project, broader macroeconomic and overall financial sector policy reforms should be dealt with only occasionally by A.I.D. projects, and then in careful coordination with the World Bank, the IMF, and other donors.

Where rural financial market development leads to broader discussions and in instances in which the issues are defined more narrowly, the policy dialogue model outlined above should be pursued.

2. *How can local resources be mobilized most effectively?*

Project findings suggest that positive real rates of interest help mobilize domestic savings. Reforms to institute flexible interest rates have therefore been central to many rural financial market projects. Nevertheless, savings mobilization can still be undertaken in an environment of negative real interest rates if the rates are not overly negative and deposit services are tailored to meet the nonfinancial needs of the rural population.

While the tendency is for more people to save greater amounts of money if positive real rates of interest are available, some savers-depositors derive real benefits from holding their savings in a secure place and will continue to do so even at negative real rates of interest. For this latter group, safety, confidentiality, convenient access, and instruments designed to meet special rural needs can outweigh income lost through negative real rates of interest. For instance, the Rural Finance project in Bangladesh found that farmers would accept lower interest rates on their savings if they could buy protection against low prices, crop losses, and other production risks. Suggestions were made that banks might be able to offer such services by spreading risks among many depositors.

Research in Bangladesh revealed that reduced transaction costs through expansion of the banking infrastructure was an important mechanism for increasing deposits in the face of relatively low interest rates. Since potential depositors respond to "effective interest rates," the balance of interest paid on deposits less the cost of making a deposit, low transaction costs can compensate for relatively low interest rates.

The significance of these findings is that while savings mobilization efforts need to examine the real rates of interest offered by RFIs, they also need to consider how the interest paid on deposits balances with the costs of making and maintaining deposits and the benefits of noninterest incentives that might be offered. In some instances in which RFIs have excess liquidity due to low levels of borrowing or policymakers are unwilling to liberalize interest rates, these noninterest incentives might be effective instruments for mobilizing savings.

3. *How can rural financial institutions be strengthened?*

A proper balance of reliable funding sources is essential to strengthen financial institutions. Domestic savings should be a major source of funds. External funding can be useful in helping to cover the costs of adopting new banking procedures but should not be extensive enough to discourage savings mobilization.

To maintain their viability, financial institutions must have a margin that covers their operating costs. This margin is the difference between the price

RFIs pay for funds and the interest they are permitted to charge borrowers. In situations in which interest rates on rural loans are fixed at low levels, this margin tends to be insufficient to cover RFI costs. In the past, donors or central banks have been unaware of the actual costs of lending, particularly when targeting requirements were imposed. While RFI operating costs are sometimes unnecessarily high and, with technical assistance, could be substantially reduced, it is nevertheless important to ensure that margins are set at levels that allow RFIs to remain solvent even while institutional reform efforts are undertaken.

Flexible interest rate structures that allow banks to charge borrowers an interest rate that covers the cost of lending promote RFI viability. In cases in which lending costs are high because of internal inefficiencies, targeting requirements, and high loan default rates, however, the necessarily high interest rates might be unaffordable to small borrowers, or possibly to any borrower. The solution is to reduce bank lending and transaction costs so that RFIs can charge lower interest rates to borrowers, rather than introducing subsidized loans with their associated problems and costs.

Lending costs can be reduced in a number of ways. Loan delinquency and default rates can be improved through proper systems of accounting and accountability. A proper accounting system allows RFIs to monitor outstanding and delinquent loans, while bank personnel who are held accountable for the loans they make have a clear incentive to improve loan decisions and efforts at loan recovery. Savings mobilization can further increase loan recovery by providing valuable information on potential borrowers and, thereby, improve creditworthiness decisions. Diversification of loan portfolios can also reduce lending costs by spreading risk among small and large, and poor and wealthy borrowers.

Small, active deposit services can also incur unmanageably high transaction costs. With technical assistance, banks can develop innovative and cost-effective ways to manage small, frequently used deposit accounts, possibly with the use of microcomputers.

4. *What additional factors need to be considered in developing a rural financial market project?*

In the interest of strengthening rural financial markets, the transaction costs of borrowers and depositors should also be considered. High transaction costs can deter savers from holding financial assets, and borrowers with high-rate-of-return investments from applying for loans. Borrower transaction costs include expenses associated with traveling to distant places to apply for, negotiate, receive, and repay a loan. Another major component of borrower transaction costs is the opportunity cost of time spent in carrying out different stages of the loan process. Similarly, depositor transaction costs include the traveling expenses and opportunity costs associated with opening an account and making repeated deposits.

Simplified loan applications can be important to borrowers not only because of the time saved in applying for loans, but also because they are less intimidating to small borrowers unfamiliar with obtaining formal credit. The largest component of both borrower and deposit transaction costs, however, is related to the cost and time of traveling between household and financial institution. Expansion of the banking infrastructure clearly has an enormous impact on these latter costs.

The challenge is how to promote bank branching in rural areas. Donor funding has done much to develop the rural financial infrastructure in developing countries. However, liberalized branching, reserve requirements, and interest rate regulations can effectively spur the private sector to respond to profitable rural banking opportunities. Moreover, mobile banking units might offer a low-cost way of intermediating even in areas of fairly low population density.

Designing a Rural Finance Project to Target Agriculture

Is a credit project targeted to agriculture necessary and viable?

1. *Are there viable rural financial institutions capable of disbursing targeted agricultural loans?*

If formal financial institutions in a region are not viable, the process of disbursing loans associated with an agricultural credit project may decapitalize the RFIs unless regular injections of external funds are made. For example, a financial institution like the BCA in Zaire, with operating costs of over 100 percent of loans made to agriculture, would essentially expend project funds to subsidize its own inefficiencies and, in the process, still be unable to disburse more than a small number of loans. During 1984 BCA employees disbursed an average of only 0.45 loans while staff salaries rapidly depleted project funds. Yet despite the clear unsuitability of the BCA for regional credit distribution, the bank continues to receive substantial donor funding. While decisions to finance credit projects through inappropriate institutions are sometimes politically motivated, occasionally donors and RFIs are unaware of the magnitude of lending costs. Thus, it is critical to evaluate these costs when choosing RFIs to participate in agricultural credit programs and when assessing project efficacy.

Project designers need to ask what kinds of institutions can most effectively participate in agricultural credit programs that serve small farmers. Agricultural development banks throughout the Third World tend to have top-heavy bureaucratic structures that may render them unfit for participation in regional credit distribution projects. Moreover, in regions where markets are very shallow and fragmented, neither public nor private RFIs may be capable

of reaching small borrowers at a transaction-cost-plus-interest-rate price that the population or the financial institution can afford.

Very small formal and informal RFIs may also be unsuitable for regional credit distribution projects. They may be unable to absorb more than very small amounts of outside lending funds without losing their viability and incentive to mobilize savings.

2. *Does the targeted population need credit?*

A.I.D. research suggests that smallholders often prefer deposit services to the burden of a loan. In fact, research in some regions found very little apparent demand for credit from smallholders, who tend to have high propensities to save and are often wary of financial debt. Small farmers often need and demand a stable market for their produce and a secure repository for their savings in preference to credit. Thus, a rural financial market project that includes savings mobilization might better meet the needs of small farmers than a credit project.

3. *Is it possible to target credit to the intended beneficiaries and/or uses?*

A fundamental question that project designers need to consider is whether targeting credit to a specific use is actually possible given the fungibility of money. Research in Brazil showed that some farmers substituted targeted subsidized credit for the funds they normally spent on farming and used these funds to pay off more expensive loans or increase their consumption levels. Other research revealed many instances where farmers quickly grasped the principles of fungibility and used low-cost loans to pay off those of higher cost, thereby increasing profits.

When financial institutions are forced to lend a portion of their portfolio to a low-income target population, they either raise the interest rates on loans to cover the added risk of lending to marginal borrowers or, if interest rates ceilings are imposed, use noninterest mechanisms to reduce their risks or transfer a portion of their transaction costs to the borrowers.

If banks can raise interest rates and choose to do so, will rural households continue to borrow, and will they use the loans for agriculture? In Bangladesh, where the inflation rate ranged between 10 and 15 percent, as interest rates on loans increased from 12 to 36 percent, rural producers continued to borrow without a significant dropoff until rates reached about 30 percent. As rates exceeded this level, however, there was a shift in loan use from agriculture to nonagricultural activities. If these findings in Bangladesh are broadly applicable and the objective of a credit project is to target agriculture, project designers should be aware that if interest rates are too high, rural households may capitalize on the fungibility principle and invest in nonagricultural activities.

If, because of ceilings, financial institutions cannot raise loan interest rates, they may reduce the size of the loans they are willing to grant, restrict the terms and conditions of loan contracts, or both, thus essentially excluding many small

borrowers from access to their credit. Even when banks genuinely wish to target smaller borrowers, the absence of a price market clearing mechanism forces the bank to transfer a portion of the transaction costs to the borrower that often exceeds what small borrowers can afford. Since some transaction costs for individual loans are relatively fixed, loans below a certain size can become prohibitively expensive, even when loan interest rates are low.

These findings clearly indicate that targeting credit either to a specific use or population is costly both for financial institutions and borrowers; these costs can essentially exclude the very population that the project is trying to help. One possible solution is for donors or governments to cover the costs of screening, reporting, and monitoring required by targeting. External funds would also be needed to pay the costs of monitoring the RFI, to assure that loans were reaching the target population. Project designers must consider whether an agricultural credit project can afford such costs.

Another solution is to increase the accessibility of deposit and loan services to small farmers. This could be done not only by expanding the rural banking infrastructure, but also by helping RFIs to develop innovative ways to adjust loan terms and conditions so as to increase the eligibility of small borrowers and better meet their needs. This solution, however, essentially calls for a project to strengthen rural financial markets and raises the question as to whether an agricultural credit project or a rural financial market project is the best way to increase the availability of credit to the small farmer target group.

If a credit project targeted to agriculture is necessary and worthwhile, what questions should be considered by project designers?

1. *Are subsidies necessary and desirable?*

Is it necessary to subsidize loans for low-income target populations? The research in Bangladesh demonstrated that farmers continued to borrow unabatedly even after interest rates doubled. While there was a dropoff in borrowing as interest rates reached very high levels, the evidence does suggest that farmers will borrow at fairly high rates. Thus, it does not seem necessary to subsidize loans.

The problems associated with subsidized credit projects, repeatedly confirmed by A.I.D. research, have been illustrated over and over again in this book. Not only do subsidies result in loan rationing away from small to larger, more solvent borrowers because of the excess demand for low-cost funds, they also tend to generate enormous institutional inefficiencies. These inefficiencies can be costly for credit programs that may have to recapitalize such institutions regularly, over and above funds for lending, just to cover operating costs. Subsidized credit can create expensive problems: the more RFIs become

dependent on external subsidized funds and develop internal inefficiencies, the more it costs them to make loans, and the more external funding they may need to stay in operation. This downward spiral thwarts the development of financial institutions and, at the same time, increases the costs of subsidized credit programs.

Moreover, financial experts have argued that when loans are not dispensed by market mechanisms, the efficient allocation of scarce rural resources between households that have surplus funds and no high-return investment opportunities and households that need funds to invest is disrupted. Available funds are not allocated to their most productive uses, and borrowers who can obtain low-cost loans may use them for low-return investments.

Given the problems discussed above as well as those associated with targeting, if project designers determine that a subsidy is necessary and that tampering with market mechanism serves social equity and development objectives, is it possible to design an effective subsidized credit project? In order to avoid some of the problems already mentioned, it would be necessary to cover the true costs of a subsidized credit project, including the costs associated with targeting and the provision of an adequate margin that covers the costs of lending to marginal borrowers. Even if these costs are affordable, however, incentives for savings mobilization would have to be preserved so as not to undermine the sustainability of RFIs.

The Grameen Bank in Bangladesh offers insights into how credit services can be provided to a poor target population without developing many of the inefficiencies that have been evidenced in traditional subsidized credit projects. While its clientele tend to be non-farm entrepreneurs, the Bank has provided credit to a large and very poor clientele, while achieving a very high loan repayment rate. This was accomplished through lowered borrower transaction costs, services tailored to the needs of its clientele, and considerable effort in loan recovery. Although subsidized by donor and government funds, at some point the Bank expects to become self-sufficient. If it can continue to build the solvency of its clientele and increase its reliance on member savings for lending funds, long-run stability may indeed be possible.

2. *What types of loan terms and conditions best meet the needs of the targeted population?*

Small farmers generally need quick access to short-term credit. Their income streams tend to be unpredictable and uneven, due to the seasonality and associated risks of farming. Before harvests, for example, when income shortages are particularly severe, funds are essential for the purchase of seeds and inputs for the next crop. At such times, farmers require access to funds. If credit projects are to meet the needs of small farmers, loan application, negotiation, approval, and disbursement procedures must be streamlined. Small, short-term loans are also essential, since small borrowers are often

unable or unwilling to assume the risks and responsibilities of larger loans and long-term repayments. If these needs are not met, research has demonstrated that farmers are less likely to repay the loans they do obtain.

Loan conditions may need to be adjusted if small farmers, who may not be able to afford down payments or meet collateral requirements, are to have access to formal credit. Innovative informal mechanisms are needed that ensure lending privileges to creditworthy small borrowers. At the same time, the risks of RFIs making loans to small borrowers who have no title to land, capital equipment, or other forms of collateral must be minimized.

Informal financial intermediation opens the door to innovative "collateral substitutes." Local unregulated financieros have intimate knowledge of their clientele; they often live in the same village or locale, and have an established relationship based on a savings record and a past history of loan repayment. Moreover, borrowers generally have a greater sense of obligation to repay loans to the local moneylender, upon whom they may have to rely for future funds. This close and mutually responsible relationship can replace the collateral required by many formal financial intermediaries who have little knowledge of their customers.

Group lending and collective responsibility for loans can also replace formal collateral. The Grameen Bank in Bangladesh lends funds through village groups that act as coguarantors. If one individual is unable to make timely repayments, credit for the entire group is jeopardized. Heavy peer group pressure on delinquents is largely responsible for the bank's 97 percent repayment rate.

These collateral substitutes indicate the importance of a close RFI-client relationship. A mutually responsible relationship not only fosters loan repayment, but also motivates the RFI to meet the needs of its clientele.

3. *How can the transaction costs of the intended beneficiaries be lowered?*

Borrower transaction costs can be reduced by streamlining loan procedures and minimizing the travel expenses and opportunity costs associated with obtaining a loan. These opportunity costs are incurred from time spent away from income-generating activities. A close RFI-client relationship can reduce the time taken to approve loans; and different loan application procedures can be devised for varying loan size and borrower experience so that small loans and experienced borrowers are more quickly processed, perhaps through oral interviews. Training sessions for inexperienced borrowers might be offered to clarify loan procedures and assist them in completing loan applications.

Informal intermediaries are very adept at providing their services to small borrowers in their locale at affordable costs. A.I.D. microenterprise credit projects have shown the effectiveness of village-level banking, which minimizes

travel expenses and the amount of time borrowers must take from income-generating activities, in reaching small and low-income borrowers.

4. *How can the viability of participating RFIs be ensured?*

Although the costs and risks of disbursing targeted credit to a marginal group can be extremely high for RFIs, credit projects can reduce these costs somewhat by limiting the specificity of targeting requirements. The more specific these requirements, the more factors that have to be accounted for and monitored and the higher the costs.

However, most important to the viability of RFIs forced to disburse targeted agricultural loans is that the credit project's lending funds do not overwhelm RFI balances among lending sources and thereby disrupt efforts at savings mobilization. Project designers need to weigh the benefits of donor credit against the impact that a credit project will have on the development of a solvent financial system. A credit project that disrupts local savings mobilization and thereby hampers development of a financial system capable of mobilizing and allocating savings to productive uses would ultimately be counterproductive to the development process.

Designers of financial projects have the opportunity to make significant contributions to sustainable rural development through interventions in rural financial systems. But such interventions must be approached with care, since there is the danger for the intended benefits to be undermined by the means for achieving them. The material presented in this book has shown how the knowledge gained from experience can be incorporated into project designs so as both to support immediate project objectives and promote sustained rural development. If there is a single overriding principle for project designers that emerges from this experience, it is this: interventions should foster a self-sustaining, market-based financial system that efficiently recycles capital generated from production surpluses into further development activity.

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