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# Cooperatives in Development:

## A Review Based on the Experiences of U.S. Cooperative Development Organizations

***Volume Two: Individual Case Studies***

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# INTRODUCTION

Volume Two contains individual case studies of the four cooperative sectors studied: agriculture, credit, housing, and rural electrification. These case studies were originally prepared not for general distribution, but as internal working and discussion documents prior to the drafting of Volume One. These drafts were reviewed several times by the cooperative development organizations, and were submitted for review and critique to a group of international cooperative development experts in June 1984. The final versions presented here incorporate, to the extent possible, the comments and suggestions of those groups. Nonetheless, the conclusions and interpretations of the papers are those of the author and do not necessarily reflect the views of the cooperative development organizations or the panel of experts.

Donald Jackson, a staff member of Development Alternatives, Inc. (DAI), participated in the initial research, analysis, and drafting of the sections on cooperative housing and rural electrification. David Gow, another DAI staff member, participated in the initial research, analysis, and drafting of the section of agricultural cooperatives.

# CHAPTER ONE

# AGRICULTURAL COOPERATIVES

## INTRODUCTION

Agricultural cooperatives are the most widespread form of cooperatives in the developing world. They exist in democratic, socialist, Marxist, and totalitarian political systems, having been established for a variety of sometimes conflicting reasons. Agricultural cooperatives may be, and have been, organized to engage in a wide variety of activities, including:

- Provision of production credit;
- Supply of agricultural inputs;
- Shared or communal production of commodities;
- Marketing of members' produce;
- Sharing of technical resources, machinery, or land;
- Manufacturing or processing of agricultural inputs or produce;
- Provision of technical assistance for agriculture, processing, and marketing; and at times
- Acquisition of land for farmer members.[1]

The scale of agricultural cooperative programs in the developing world has also differed widely. Some projects, such as the Indian Farmers Fertilizer Cooperative, Ltd. (IFFCO) and the vegetable oil-seed program in India, have received hundreds of millions of dollars in international donor agency support over extended periods, whereas others, such as the Agricultural Marketing Project in Ecuador, have received only modest support during a very short period.

One major difficulty in attempting to draw conclusions from the experiences of agricultural cooperative development projects is that, given this diversity, no single form or experience can be called typical.

Why are agricultural cooperatives so widespread? On the one hand, governments in the developing world and donor agencies have realized that it is inefficient to attempt to provide assistance to individual small farmers. In seeking a group approach to providing technical assistance and resources, host government agencies have seen the convenience and economies of scale offered by the cooperative approach as means to stimulate rural development. On the other hand, rural inhabitants have also taken the initiative in forming cooperatives, motivated often by enlightened self-interest and an awareness that national governments cannot and will not provide everything they need.

The international donor community has also played a role in establishing cooperatives. The Humphrey Amendment to the Foreign Assistance Act of 1961, the Alliance for Progress, and the New Directions mandate (which attempted to target the benefits of development to the rural poor) all encouraged U.S. support for cooperative development in the Third World.

The North American cooperative movement does not view cooperatives as the panacea for the ills of developing countries or as a complete solution to the problems of the rural poor. Cooperatives are advocated as institutions capable of making a number of significant, positive contributions to economic and social development:

- Because of their ownership structure, service orientation, ability to take advantage of economies of scale, and use of their members' own efforts, agricultural cooperatives provide goods and services at a lower cost to members than would otherwise be the case, resulting in a greater return to the members than alternative development strategies;

- By emphasizing local ownership and member participation, agricultural cooperatives contribute to the development of human resource potential;

- Agricultural cooperatives can mobilize otherwise untapped resources for productive purposes, providing a net increase in capital formation and growth in poor countries;

- Agricultural cooperatives can serve as a conduit for channeling development resources, either public or private;

- Agricultural cooperatives provide a way to enfranchise peasant farmers and reinforce the political and economic leverage of the membership on both the private and the public sectors;

- Since agricultural cooperatives are business enterprises, a successful project creates a base of ongoing local institutions that provide benefits to members beyond the end of the project; and

- Agricultural cooperatives provide a normative force in the marketplace, introducing competition to normally closed economic systems.

## Basic Approaches to Agricultural Cooperative Development

Most U.S. support to agricultural cooperative development in the Third World has been implemented by two cooperative development organizations (CDOs): Agricultural Cooperative Development International (ACDI) and the Cooperative League of the USA (CLUSA).

Several different models have been used in promoting agricultural cooperatives. One is the federated approach, either two- or three-tiered, in which a second-level cooperative supplies services and resources to affiliated primary cooperatives. A second approach is the regional model, which locates the cooperative business office in a rural market town to serve several thousand farmers within a 20-30 kilometer radius. Additional sub-units of the cooperative may be established at the village level, but these are generally informal units or branches of the main cooperative. If several regional cooperatives are

established in a country, a federation might be formed by moving the project staff to the federation to continue to serve the regional cooperatives by providing auditing, financing, education and training, wholesale supplies, and marketing.

A third model is to develop a single large cooperative around a major process (such as fertilizer manufacture and distribution, milk or vegetable oil processing, or exporting) and concentrate on providing services or purchasing products from independent producer cooperatives. A fourth model is to establish individual, independent cooperatives, without ties to a higher-level organization.

All of these models demonstrate these general features:

- Only members may vote for or serve on the board of directors;
- Only members may share in patronage refunds;
- One member, one vote, regardless of how many shares that member may own;
- The cooperative is treated primarily as a business entity -- with emphasis on marketing, processing, or both;
- When feasible, professional management is hired to run the daily operations of the cooperative;
- Systematic and mandatory capitalization is required; and
- Members are offered reliable services.[2]

Variations to this approach do occur. In some projects, CDOs have provided assistance to national government institutions to increase their ability to develop and support cooperatives, instead of working directly with cooperatives.

The long-term goal of an agricultural cooperative project is to improve the socioeconomic well-being of the members and provide them with the means to improve the quality of life for themselves and their families. However, the immediate objective

of foreign assistance projects is to create service-oriented institutions that can continue to function once external assistance terminates and maintain a benefit flow to both members and, in the case of federations, to primary-level cooperatives. The U.S.-based agricultural CDOs believe that they can have a greater impact at the regional or national level in a country, building a permanent cooperative infrastructure that can provide ongoing assistance to individual cooperatives. Their experience has been that short-term project personnel are less effective in organizing local-level institutions.

Training and cooperative education have always played an important role in the approach of both CDOs. Current projects in Gambia, Kenya, Rwanda, and Uganda are primarily training projects. Although cooperative education itself has traditionally concentrated on the social, participatory, and philosophical aspects of cooperativism, attention is increasingly concentrated on developing the specific management and administrative expertise that is essential to run a successful rural enterprise.

## The Sample

The primary data base used for this study is the existing documentation on those cooperative projects implemented by the ACDI and CLUSA -- the two CDOs -- during the past 15 years, including several in which they are still actively involved. Since the projects reviewed cover a wide spectrum, a brief description of each is provided below.

### ACDI Projects

Bolivia: From 1978 to 1981, ACDI worked as a subcontractor on the Small Farmer Organizations (SFO) Project. This project established four integral cooperatives (a variation on the regional cooperative theme) through the public sector entity and, later, the private sector. From 1979 to 1982, ACDI provided a

credit adviser to the largest multi-service cooperative in Bolivia, the Cooperativa Multiactiva La Merced (La Merced), which had been founded as a savings and loan cooperative in 1961.

Guatemala: Implemented during 1971-1976, this project established a series of six regional (market town area) cooperatives to provide services, primarily in production credit and input supplies, to small farmers. The members, mostly highlands Indians, were associated in informal groups at the village level. This project served as a model for later ACDI work.

From 1976 to 1981, ACDI -- contracted by the Guatemalan government and in collaboration with the Federacion de Cooperativas Agricolas Regionales (FECOAR) -- was involved in the design and implementation of the Northern Transversal Strip Land Resettlement Project. This project was to provide land in the jungle to Indians from the overpopulated highlands.

Honduras: From 1967 to 1973, ACDI helped establish primary cooperatives and a federation, the Federacion de Cooperativas Agricolas Hondurenas (FECOAGROH), which were to supply inputs and market members' produce. The U.S. Agency for International Development abruptly terminated assistance in 1973 because of loan delinquency problems in the affiliated cooperatives.

Between 1975 and 1977, ACDI worked with Direccion de Fomento de Cooperativas (DIFOCOOP), the government cooperative development department, to establish a training division and conduct a series of one-week sessions in elementary accounting and management. This work was followed in 1981 with a new project, the model cooperative project, designed to establish regional cooperatives to provide production inputs, technical assistance, and marketing services.

Philippines: From 1979 to 1983, ACDI was involved in a Cooperative Marketing Project (CMP). ACDI provided assistance to develop necessary financial support systems and to develop and support the area marketing cooperatives.

Uganda: From 1963 to 1973, ACDI implemented a wide range of cooperative activities -- including credit and finance, livestock and poultry development, and supply and marketing -- for the government of Uganda. Since 1982, ACDI has provided technical assistance and training to rehabilitate the cooperative movement, drastically debilitated during Idi Amin Dada's regime.

CLUSA Projects

Ecuador: From 1968 to 1973, CLUSA helped establish primary societies of rice producers and create a national federation of rice cooperatives, Federacion Nacional de Cooperativas Arroceras (FENACOOPARR). After three years, the federation refused to implement the changes recommended by AID and CLUSA. Although AID phased out both funding and technical assistance, FENACOOPARR managed to find its own financing.

Egypt: From 1980 to 1983, CLUSA assisted in the creation of a regional union of cooperatives, the United Cooperative Society (UCS), whose purpose was to assist four already functioning vegetable cooperatives with production credit and marketing. At present, CLUSA provides assistance to the Ministry of Agriculture on defining a policy toward cooperatives and other areas. The ministry's support may lead to a new type of activity involving technical assistance within the sector.

Indonesia: Since 1981, CLUSA has provided assistance to the PUSPETA Cooperative Project (PUSPETA), a private sector cooperative federation in Central Java that strengthens local cooperatives as well as assists them to engage in income-

generating projects. An ambitious project financed with PL 480 funds, it is designed to offer an alternative to the public sector approach.

Panama: Established with assistance from AID and CLUSA in 1970, the National Federation of Agricultural Cooperatives (COAGRO) was designed to function as a business, supplying marginal farmers with services ranging from input supply to marketing and processing. CLUSA provided technical assistance from 1970 to 1972 and again during the late 1970s. COAGRO still functions. Its financial position, although precarious in recent years, has reportedly begun to improve.

Rwanda: Since 1979, CLUSA has implemented the Local Crop Storage (LCS) Project, whose principal objective was to establish a series of storage and marketing cooperatives throughout the country. Farmers could sell their grain to the cooperatives at harvest time, receiving a small margin over the going market price, buy it back during the months of scarcity at below market prices, and, in the interim, receive a cash loan on their grain deposit.

Swaziland: From 1978 to 1981, CLUSA provided assistance to expand and improve the economic base of the Central Cooperative Union (CCU), and to strengthen the institutional capacity of CCU and its affiliates. When the government proved reluctant to make necessary policy and procedural changes (primarily in the area of loan delinquency control) for effective cooperative development, CLUSA and AID terminated the project.

In addition to these specific projects, the study reviewed data on several other AID-financed projects some of which involved CLUSA and ACDI. These included:

- IFFCO was a large undertaking involving the participation of such institutions as CLUSA; the International Cooperative Development Association (one predecessor of ACDI); Cooperative Fertilizers International, which actually implemented the project; AID; the Governments of Britain, Holland, and India; and the National Cooperative Union of India;

- UNIPACO, a cotton cooperative marketing federation in Paraguay;

- The Agricultural Marketing Project in the Canar region of Ecuador; and

- The Small Agricultural Enterprises Project (originally called the Land Sale Guaranty Project) in Ecuador.

During the study, the experiences of five other major research efforts in rural development and cooperatives were reviewed and compared with those of the sample projects. These included:

- A study by the United Nations Research Institute for Social Development (UNRISD) of 37 rural cooperatives in developing countries -- 14 in Asia, 12 in Africa, and 11 in Latin America. Although the results were not published until 1975, the research was conducted in 1969-1970;[3]

- A study by the Committee for the Promotion of Aid to Cooperatives (COPAC) of 23 rural cooperative projects implemented by U.N. agencies during the 1970s;[4]

- A recent Inter-American Foundation study on agricultural cooperatives in Bolivia;[5]

- Cornell University's state-of-the-art report on local organizations. Of the sample of 150 organizations, slightly more than one-third were rural cooperatives;[6] and

- Several integrated rural development experiences. Although similar to the cooperative development approach (geographically specific, multi-service, focused on small farmers), they differ in that they are usually public sector and use a non-cooperative approach.[7]

Finally, the preliminary results and conclusions of this study were submitted to an international panel of cooperative development experts for review during June 1984. The panel included representatives from the U.S. CDOs, West European donor agencies and cooperative organizations, cooperative leaders from developing countries, and host government officials. The comments and suggestions of this group of experts are incorporated, to the extent possible, in this final report.

## THE CONTRIBUTION OF AGRICULTURAL COOPERATIVE PROGRAMS TO DEVELOPMENT

### Member Benefits

By building sustainable and effective service institutions, cooperative development helps to improve the economic well-being of members. As a result, cooperative development provides them with a means to improve the overall quality of life for themselves and their families.

#### Providing Increased Returns to Members

Two years after the creation of FENACOOPARR in Ecuador, marketing services were introduced and the federation bought directly from the affiliated cooperatives, paying 11.5 percent more than the going market price. The federation bought 12.6 percent of the total rice production of the 27 affiliated cooperatives.[8] Two years later, the federation marketed 40 percent of the rice production of its 45 member cooperatives as well as that of 25 others with which it worked. It is fair to assume that those members marketing through FENACOOPARR continued to receive a better price.[9]

In Rwanda, the crop storage cooperatives increased returns to members at harvest time by paying an average of RF 18-20 compared to an average of RF 10 paid by local traders. During

the period of scarcity, cooperatives typically resold beans to farmers at RF 25-28, compared with the average price of RF 32-40 charged by the traders.[10]

In India, the vegetable oil cooperatives paid member farmers as much as Rs. 1,000-2,000 more per ton for groundnuts than private processing plants.[11]

PUSPETA in Central Java officially began in 1981 and was evaluated 18 months later. At the time, the federation offered a variety of services, including marketing, credit, milk production, egg production, tile manufacture, embroidery, and a certified seed program. Members had received higher prices for products marketed through the federation. The embroidery, tile making, and egg production programs have been designed specifically to help the very poor and the landless.[12]

Participants in the UCS project in Egypt were able to increase income by pooling production to meet government established quotas.[13] An evaluation of seven years of assistance to Ugandan agricultural cooperatives pointed out that " . . . the significant factor is the great increase in agricultural revenue, which has resulted in a rise in individual cooperative members' incomes . . . ."[14]

With the FECOAR project in Guatemala, the principal services available to the approximately 16,000 members in 1979 were production credit and farm inputs, primarily fertilizer and seed, and the limited marketing of wheat. A study conducted three years after project began, however, found little difference between the net income of FECOAR members and that of non-members.[15] Although FECOAR members tended to use more fertilizer than non-members, this factor did not translate into significant increases in productivity. There were several possible explanations for these results, including poor harvests during that year and the fact that farmers might have joined

cooperatives to obtain credit in the hope that it would not have to be repaid.[16] Three years may have been too short a period to achieve any measurable economic impact.

In Panama, a 1981 evaluation of COAGRO indicated that the federation's principal service to member cooperatives -- the supply of fertilizers, agrochemicals, and animal feed -- resulted in extremely high levels of fertilizer and insecticide use among members. Net income from high-level commodities produced by members, such as potatoes, onions, and tomatoes, ranged from $1,200 to $2,200 per hectare. In contrast, net income for more traditional crops such as corn, rice, sorghum, and yucca ranged from $92 to $490 per hectare. The evaluators concluded that these positive results must in part be explained by the availability of credit and production inputs through the cooperatives.[17] But no base-line or comparative data had been collected to measure whether members were better off than non-members.

## Bringing Services to a New Area or Sector of the Population

Like other foreign donor-assisted rural development projects, agricultural cooperatives have been designed to benefit sectors of the population that are on the margin of normal private and public sector services. Examples of this are found throughout the project sample:[18]

- The small farmers served by La Merced in Bolivia had no alternative institutional sources of credit.
- FECOAR in Guatemala opened credit, supply, marketing, and small-scale machinery services to low-income Indian farmers in the highlands. Perhaps the most important benefit of FECOAR was that membership was predominantly Indian, precisely the group the government had done the least to help. From this perspective, FECOAR provided services that would not otherwise have been available.
- The Bolivian Small Farmer Organizations Project organized and provided services to farmers in an area that had previously received little, if any, formal assistance.

- The Guatemalan resettlement program selected candidates and supported settlers from a population that had received little attention or assistance from either public or private sector institutions.

- In Honduras, the FECOAGROH cooperatives were established in poor, isolated communities with few services. Cooperatives affiliated with FECOAGROH were the only source of supplies and credit for their members.

Introducing Competition into Traditionally Non-competitive Markets

The IFFCO project in India competed with both public and private fertilizer producers and successfully forced local market prices for fertilizers down. In Bolivia, the cooperatives had increased local prices for farm products and forced lower local market prices for farm supplies by offering alternative markets and sources of supplies.[19]

One major objective of many agricultural cooperative projects has been to reduce price fluctuations. This was clearly the objective in the LCS project in Rwanda, and evaluations have indicated that the farmer-producer has benefited from the storage and resale activities of the cooperatives. This was also one major objective in the vegetable oil-seed project in India: by providing a stable market, the project hoped to reduce speculation and price fluctuations.

Providing Access to Goods or Services that Would Otherwise Be Unavailable

Before FENACOOPARR was formed in Ecuador, AID and CLUSA organized tenant rice farmers into cooperatives -- which were later affiliated with FENACOOPARR -- and urged them to claim their rights under agrarian reform legislation. These early activities were so successful that one AID cooperative technician was denounced as a communist by large landowners and the United States was accused of having introduced the so-called poison of land reform into Ecuador. With the creation of the federation

and staff turnover, the focus changed, although FENACOOPARR continued to provide legal and surveying services to affiliated cooperatives.[20]

A colonization project in the jungle lowlands of Guatemala was only tangentially a cooperative project. Although FECOAR assisted with the selection and settling of the colonists, the new inhabitants, with the exception of one small settlement, are not organized into cooperatives. Access to land has been the major benefit for the 2,000 families. As one settler expressed it: "There is nothing in the world better than having your own land to work."[21]

## Contribution to National Development

### Significance in National and Local Markets

In some instances, agricultural cooperatives have become major economic institutions. Cooperatives market 60-70 percent of the coffee in Central America. In 1970, before Amin, cooperatives in Uganda purchased approximately 60 percent of the coffee in the country and ginned all of the cotton. IFFCO is the predominant fertilizer producer in India; the vegetable oil and dairy cooperatives also command a significant share of the market for these products. FECOAR was a market leader in production credit and supply, achieving a market penetration of up to 40 percent in the rural communities that it served. The rice cooperatives in FENACOOPARR and the Small Agricultural Enterprises Project in Ecuador had the potential of converting Ecuador from a net importer to a net exporter of rice.[22]

A cooperative's position in a national market depends as much on government policies as on factors internal to the cooperative itself. Where government policies have been favorable, well-managed cooperatives have usually become significant forces in local economies.

## Mobilization of Local Resources

Many approaches to rural development serve only as resource transfers from public sources to the beneficiary farmers. Cooperatives, however, often seek to mobilize local resources (in addition to labor) to support both the project's activities and the local cooperative. This occurs primarily through the requirement of share capitalization in the purchase of equity shares by the members, although in some instances it includes savings mobilization, additional capitalization, and participation.

Unfortunately, data on the amounts of resources mobilized by agricultural cooperatives are not readily available. Although project documentation and interviews with project staff support the contention that this capitalization does occur, the amounts and significance are, with rare exception, not available in the United States. The fruit and vegetable cooperatives in Honduras were reported to have generated member capitalization of $220,000, an average of $190 per member. Cooperatives in FECOAR were capitalized by initial member subscriptions, retained earnings, and contributions from members. UCS cooperatives in Egypt received equity capital from member cooperatives when it was first formed, but that amount was small and no further capitalization was provided.[23]

Share capitalization is universal in agricultural cooperatives. The amounts required, however, are generally small, and further contributions of share capital are not actively promoted.

### Creation of Effective Linkages between Members and the National Society

The cooperative associations studied by Tendler in Bolivia represented one of the few institutions voicing the economic interests of small farmers. Over the years, these associations were able to:

- Make effective claims on public sector goods and services previously available only to larger farmers;
- Gain entry to private sector industry associations; and
- Set an example of how banks and public sector agencies should relate to small farmer groups.[24]

### Provision of an Effective Mechanism for Providing Services to Small Farmers

A 1979 project amendment of the Small Farmer Organizations Project in Bolivia stated that the integral cooperatives had demonstrated that they could serve as effective channels for providing services to poor farmers, specifically, the provision of credit for crops and the purchase of dairy cattle and oxen.[25]

### Human Resource Development

The process of establishing numerous small rural cooperatives inevitably includes the training and education of local personnel. Training programs associated with projects concentrate on basic management and leadership, technical skills, and board and member responsibilities. As examples, 25-30 members of La Merced in Bolivia were trained in loan management and collections. An equal number of cooperative staff members were trained to manage the operation of the four fruit and vegetable cooperatives in Honduras. The project in Uganda heavily emphasized training in 13 district cooperative training centers: the number of full-time students attending resident

courses increased 40 percent during the life of the project, and 58 cooperative leaders participated in an on-the-job training program in the United States.

The investment of resources in education and training is substantial in most cooperative development programs. Apart from isolated, anecdotal cases, however, little information is available on the long-range impact of this human resource development on either the success of the cooperatives or the broader national economy and society.

Other Benefits

An extensive survey of La Merced members who had participated in the small farmer credit program listed the following benefits that had accrued to them:

- Increased farm income, savings, and employment;
- Increased investment in productive capital, particularly tools, animals, land, and machinery; and
- Increased home improvement, nutrition, and health.[26]

Three interventions exhibited unanticipated benefits. A 1975 study of FECOAR commented favorably on the innovative organizational approach of using informal groups, which were easier to establish than legally constituted primary societies. Initially, however, the ladino managers had difficulty relating to or working with the Indian members.[27] The local elected directors were seen as acting more as a consumer interest group than as a governing body.[28]

Since the termination of the AID-funded project in 1976, FECOAR members and directors have exercised greater control, removing several of the ladino managers and taking more direct charge of local cooperative business. Unfortunately, this has been accompanied by a serious increase in delinquency and

administrative problems. Moreover, the present status of FECOAR is uncertain because the regional cooperatives are located in areas of the highlands where political violence has been most intense. Some of these cooperatives have lost up to 30 percent of their members as a result of this violence.[29]

In the case of La Merced, evaluators found a high level of local participation and civic responsibility among cooperative members. Two out of every five families interviewed had a household member serving in a community leadership position, and more than 90 percent had contributed voluntary labor to community projects. Nearly 80 percent said they had attended community meetings during the previous 12 months, and of these more than two-thirds attended more than 10 meetings. In addition, more than 25 percent of the respondents provided some form of assistance, either labor or cash, to projects benefiting neighboring communities.[30]

With the LCS project in Rwanda, the services available have been offered to members and non-members alike. This so-called free-rider problem exited in all four cooperatives Tendler studied in Bolivia: the cooperatives were forced to allow their benefits to spill over to non-members to achieve the volume of business required to make the operation economically viable.[31]

In Rwanda, the situation was different. First, the cooperatives sold surplus commodities at a discount price to traders to avoid losses. Second, the government's primary interest was to establish a storage and marketing cooperative in each of the county's 143 communes. Little attention had been paid to the financial viability of the storage and marketing operations. In fact, the cooperatives had little idea of their financial situation because they kept fneither balance sheets nor cost accounts.[32] The government is more interested in the LCS project as a means to distribute government services than as an independent business enterprise.

## Institution Building and Sustainability

The major problem of many rural development projects is that intended benefits are not sustained (if ever attained) when foreign aid funds are withdrawn. Unfortunately, the lack of sustainability is more often the rule than the exception.[33]

The cooperative approach to rural development places a high premium on institutional sustainability. Projects are designed to create effective service institutions that are sustainable once external technical assistance and donor financing terminate. To be sustainable, these institutions must have the necessary resources, particularly capital and qualified personnel, to continue providing member services while generating sufficient income to cover recurrent costs.

As the following examples indicate, the attainment of sustainable local cooperative institutions has often proved elusive. Between 1970 and 1976, AID provided $1.4 million of grant assistance to FECOAR and its six affiliated regional cooperatives. This assistance involved not only technical assistance but also covered the salaries of the Guatemalan staff, construction, commodities, and participant training. In addition, AID channeled $3 million of loan funds through BANDESA, the agricultural development bank. When external assistance terminated, FECOAR and its six affiliated regional cooperatives were on the way to becoming sustainable: the federation itself was self-sufficient, as were two of the regional cooperatives.[34]

By 1976, although capitalization had reached $1.4 million (approximately $104 per member) and total assets $4.4 million, FECOAR was heavily dependent on soft loans from BANDESA. With a narrow income base, the interest spread that FECOAR earned on credit operations did not fully cover costs. The margins on farm supplies sustained the cooperative and subsidized losses in the credit operations.[35]

The overall delinquency rate stood at 30 percent of overall amount of production credit disbursed. Nonetheless, FECOAR survived fairly well until recently. Political violence, low prices, faltering leadership, and poor management have all debilitated the institution.[36]

In contrast to FECOAR, FECOAGROH lasted only three years before going bankrupt in 1973, when AID refused to provide any further assistance because of serious loan delinquency in 22 of its 29 affiliated cooperatives. The project received $965,000 in grant assistance and $1.5 million in loan funds for production and marketing credit. Ten years later, FECOAGROH had only one employee and the majority of the 14 remaining affiliated cooperatives were struggling to survive.[37]

Throughout its history, COAGRO in Panama has been plagued by financial problems as a result of poor management and overextension. In 1973, the government provided COAGRO with an open line of credit; in return, COAGRO agreed to handle fertilizer and chemical supplies for the agrarian reform production units ("asentamientos"). By 1975, COAGRO was supplying more than 50 percent of its services to the government and appeared to act more as a national development agency than a cooperative federation.[38]

Various other problems were identified during this period, including little capital, no capitalization, no working credit system, a poorly informed board of directors with no working relationship with the manager, and poor working relationships between COAGRO and other development institutions.[39] With the appointment of a new general manager in 1977, the situation improved considerably until he became deputy minister of commerce.

When AID-supported assistance terminated in 1979, COAGRO was still in a precarious situation, given its management problems and the need to secure financing, collect outstanding debts, and implement a sound credit policy to reduce reliance on costly external financing.[40] By 1981, COAGRO was seriously undercapitalized by its affiliates (97 cents of every dollar had been provided by outside creditors) and increasingly dependent on the sale of production inputs to non-members who paid cash. Nevertheless, the completion of COAGRO's fertilizer plant was a source of pride to members.

By the end of 1983, although still undercapitalized and seriously indebted to commercial credit sources, COAGRO was making substantial progress, as shown by increased sales and services and reduced overhead costs. COAGRO's provision of farm inputs on credit was a valuable service to members, but caused severe delinquency and management problems.[41]

After only three years of operation, FENACOOPARR in Ecuador, although still dependent on AID for 85 percent of its financing, turned down offers of further assistance. The basic disagreement with AID and CLUSA concerned whether the federation should concentrate on needed non-income-producing services or income-producing business activities. FENACOOPARR felt that there was still a great need for providing accounting, legal assistance, and land surveys. These were not available elsewhere and would not generate much income for the federation.[42]

AID, however, tried to persuade the federation to change priorities and concentrate on the provision of commercial services, particularly rice milling and marketing. The federation could then become self-financing by charging fees for these services that would also improve members' income.[43]

When FENACOOPARR decided to continue on its own, it succeeded in mobilizing capital and support from public sector institutions, including a $600,000 loan from the AID-funded

Cooperative Bank. It also began to implement several income-generating activities earlier recommended by CLUSA, including machinery sales, rice milling, and input supplies. By 1976, however, the federation was reputedly having difficulties, as a result of overextension and poor management.[44]

Of the two cooperative development projects in Bolivia, the SFO project was problematic. The project was to transform the National Community Development Services (NCDS) from an institution designing and implementing small social infrastructure projects into one involved in economically productive activities. Four years after project start-up, AID was so disillusioned with the performance of NCDS and the four cooperatives it had created that NCDS was dropped as the host institution and the responsibility given to a specially created entity within the Credit Union Federation (FENACRE).[45]

Responsibility moved from an underbudgeted and highly bureaucratic public sector institution with no experience in institutional development to a private sector institution with little experience in rural development. Two years later, an AID evaluation concluded that the project had largely failed, a result of poor performance by the new host institution as well as inadequate planning and management.[46]

In contrast, La Merced had operated for more than 20 years. The project provided specific technical assistance to improve La Merced's credit program for small farmers and internal budget management. By 1982, the farmer credit program (a small, although important component of a complex, multi-service operation) was serving 4,000 members out of a total of over 42,000 rural and urban members.

UCS in Egypt was established as a regional union of cooperatives working directly with four vegetable-marketing cooperatives that were functioning satisfactorily well before the project started. UCS was expected to:

- Increase the efficiency and effectiveness of private agricultural cooperatives;
- Provide capital for production credit; and
- Establish an institutional framework for the provision of management, cooperative development, and marketing guidance to other groups in Egypt.[47]

During the three years of technical assistance, UCS implemented a credit program and attempted to expand marketing operations, although these efforts were hampered by the pricing policies of the government of Egypt and its lack of any clear-cut policy regarding cooperatives. From CLUSA's perspective, UCS, with limited staff, limited management capability, and no risk capital, will remain marginal until the government makes a policy decision concerning the role of the cooperative movement.

CMP in the Philippines was designed to improve the cooperative marketing structure for essential agricultural commodities produced by small farmers, most of whom were recent land reform beneficiaries. Specifically, the project was to improve the capacity of 15 area marketing cooperatives (AMC) to provide input supply and marketing services to approximately 90,000 small farmer members. The project was also to develop a cooperative finance institution to serve AMC's financial needs.[48]

The major achievement was the establishment of an embryonic, but solidly based financing institution. Assisting AMCs to develop their own marketing system was particularly difficult because of a well-entrenched private sector marketing system and political domination of the national cooperative marketing

organization. Cooperative members were not well served by AMC or the cooperative banks, since both suffered from poor management. At the national level, a decision had to be made concerning which institution was to replace those filling in for the apex organization, which had begun to falter even before the project started. A recent AID evaluation blamed the lack of success primarily on inadequate government support and a cumbersome, outdated implementation plan.[49]

In India, IFFCO now has three fertilizer plants functioning at Kalol, Kandla, and Phulpur and a total of 26,960 primary societies purchasing 1.4 million tons of fertilizer annually. IFFCO continues to be the largest single producer of fertilizer in the country. In 1981-1982, it produced 14 percent of the country's nitrogenous fertilizer and 26 percent of its phosphate fertilizer.[50]

The CCU project in Swaziland was unproductive, primarily because of the basic disagreements between the government of Swaziland on one hand and AID and CLUSA on the other concerning the role of cooperatives. The initial goals of the project were to:

- Expand the economic base of CCU; and
- Build the organizational and management structure of CCU and its affiliated cooperative societies.[51]

Two years after project initiation, an AID evaluation recognized that the government had made no firm commitment toward the development of cooperatives and, consequently, prepared a long-range operational plan for cooperative development. The project was placed on hold status, and the government was requested to address these issues. Later that year, AID received a satisfactory response from the government and removed the holding action it had placed on the project.

Six months later, an appraisal of the problems and successes of the cooperative movement identified the major problems:

- The cooperative system was not economically viable as currently organized;
- There was a lack of participation and involvement by the membership;
- The system lacked overall direction and purpose; and
- There was a general lack of understanding of just what cooperatives are.[52]

To remedy these problems, the study made a number of recommendations aimed at improving CCU's organizational, financial, and human resources capacity. The government accepted these recommendations but did not implement them. As a result, CLUSA and AID terminated the project. Two years later, CCU had reluctantly begun to implement some of the recommendations. Nevertheless, in a country in which a large percentage of the population is engaged in agriculture and livestock raising, the government has usually regarded cooperatives as a means to channel services to the rural population.

Since current assistance to agricultural cooperatives in Uganda is so recent, little can be said about ongoing institution building. That the basic cooperative structure created during the first period, although somewhat tattered, was still in place after Amin fell is surely an indication of sustainability.

In summary, many of the agricultural cooperative development projects have established successful primary cooperatives. The experience of building independent, self-sufficient second-level organizations has been mixed. IFFCO, COAGRO, and FECOAR are second-level organizations that were able to survive and provide services to their members; FENACOOPARR and FECOAGROH were not.

Among the projects reviewed, sustainability has varied widely. IFFCO has been in business for 25 years. La Merced has existed as a credit union and multi-service cooperative for 20 years. COAGRO has survived for 14 years. The agricultural cooperatives in Uganda have survived the Amin regime and shown remarkable potential after this negative experience. Tendler found that all four cooperatives she studied in Bolivia had entrenched leadership, still depended on outside financing, and displayed a certain tolerance for mismanagement and graft. But she also found that after 10 years they still provided benefits to members and represented their economic interests. She concluded her study with some provocative suggestions:

> The achievements that we witnessed in the studied groups were themselves not the result of a faithful application of cooperative principles. We should be disturbed only if the groups we finance do not provide the kinds of benefits and benefit distribution we are looking for . . . . If the studied groups were not cooperatives, then what were they? There is no handy name for what they are which is probably one reason why they get called cooperatives, and why we tend to measure their performance in terms of cooperativism -- or as deviations from it.[53]

While sustainability has been a major objective of the projects reviewed for this study, the demise of an institution may not necessarily signal the failure of the project. It is possible for an organization (including a cooperative) to outlive its purpose or to be so successful that it becomes redundant:

> Indeed, there are many occasions when the very success of co-operative ventures may be the reason to discontinue or limit the cooperative. For, by raising incomes, and knowledge, and capital reserves, this starting mechanism may have brought producers to the point where they can get better service through commercial channels.[54]

Two Caveats

It is often difficult to ascribe causality in a development project. This is especially true of institution-building projects, whether or not they are organized around a cooperative approach. During implementation, the benefits deriving from a project are frequently resource transfers rather than independent results of a successful project. In many of the projects reviewed, for example, the availability of credit -- often in the form of soft loans provided directly or indirectly by AID -- has been critical. Cooperative projects, which are both business oriented and private sector, usually need some seed capital to begin activities or expand those already under way. In practice, this may mean that what are often presented as benefits during the early years of a project should, in fact, be viewed as simple resource transfers.

In other words, it is difficult for any local institution to avoid providing services that will benefit members as long as those services and benefits are subsidized or are the direct results of the resource inputs provided by the donor agencies. This is true whether the development strategy involves cooperatives or some other form of delivery mechanism. Only when an institution has established its own income-generating activities and no longer acts as an agent for transferring resources is it appropriate to label any impact on members as benefits of the cooperative approach.

The second caveat is that benefits are often not directly attributable to the cooperative component of the project. For example, in the case of the LCS project in Rwanda, the major benefits to the farmers resulted from the existence of grain storage facilities and funds to purchase grains from the farmers. These could have been provided through an alternative delivery mechanism, so it is not accurate to say that the benefits and impact that have occurred are uniquely the result of the fact

that the project was established as a cooperative. This is not to say that the cooperative approach did not offer a better alternative, or that other approaches would have been as successful; in the absence of direct comparisons, it is difficult to distinguish the separate and distinct contribution of the cooperative aspect of the project.

## PROBLEMS ENCOUNTERED AND LESSONS LEARNED

### Sponsoring Institutions

The key institutional players in project design and implementation are likely to have differing purposes. These differing agendas, which neither singly nor collectively place the highest priority on achieving project goals, have led to serious implementation problems. This is particularly true when one remembers that U.S. foreign assistance is intended to promote U.S. political and security interests in developing countries.[55] And cooperative development projects are no exception.

AID's differing agendas have been particularly pronounced in Central America. When the FECOAR project was designed in 1970, the Credit Union Federation of Guatemala (FENACOAC), already offered the many of the services (provision of credit and sale of fertilizer) to the same clientele proposed for FECOAR. One reason for the duplication may have been political. FENACOAC had been created with AID assistance during the 1960s. According to one observer, the cooperative movement in Guatemala was dominated at that time by the Christian Democrats, who were politically opposed to the government. With the creation of FECOAR, AID believed that it could foster a non-political cooperative movement that would counterbalance the influence of the Christian Democrats.[56]

A similar shift took place at the same time in Honduras, where AID had also helped to establish a credit union federation in the 1960s. Conflict between AID and the federation grew, with AID characterizing the federation as radical and the federation denouncing AID as interventionist.[57] AID terminated support to the credit union federation at approximately the same time that a project was initiated to establish a new agricultural cooperative federation, FECOAGROH. Attempts to channel credit specifically to FECOAGROH farmers with funds supplied through the credit union federation were the result of AID's project design, and were unsuccessful.

In the initial stages of the current model cooperative development project in Honduras, the cooperative development organization had to follow AID policy and create cooperatives in areas where the regional cooperatives established by ANACH, the largest peasant union in the country, were inactive. This was a difficult request to meet since ANACH cooperatives are found throughout Honduras. In practice, this meant that the first two cooperatives were established in areas where the agricultural potential was limited and the previous history of development efforts not encouraging.

In addition, the two rural cooperative movements are in open conflict with each other, even within the context of U.S. support. The goal of ANACH, which is supported by the U.S. embassy and the American Institute for Free Labor Development (AIFLD), is to build an anti-communist power base in rural areas centered on the cooperatives. The model cooperatives supported by ACDI and AID try to build viable service-oriented agribusinesses. ANACH looks on the model cooperatives, which have been more effective in providing services and handling credit, as a threat, and has effectively blocked the introduction of additional model cooperatives in other areas of the country.[58]

AID's goals in cooperative development may be somewhat different from those of the CDOs. That there are strong political dimensions to rural development is a fact of life. What is important, however, is that these differing agendas must be clarified and laid out as early as possible in the design and implementation of projects.

## Project Design

### Participation in Design

A review of the experience of agricultural cooperatives in Latin America observed:

> Many cooperative development projects have been designed in the past without the participation of even one cooperative person. Worse yet, many cooperative development projects have been designed without the participation of the cooperative sector in the host country . . . the design of many cooperative projects has been accomplished by project design 'professionals' with little 'hands-on' cooperative or development implementation experience.[59]

The experience of projects that were designed without the participation of cooperative groups (national or international) has been decidedly negative. The SFO project in Bolivia was developed in this fashion. Recommendations of cooperative groups for modification of the design were rejected, and, after a short implementation phase, the project terminated in failure. In Costa Rica, a project designed without local or international cooperative participation terminated in failure two years later.

### Creation of New Institutions versus Working with Existing Ones

Working with existing institutions avoids the risk of creating new organizations in an untested environment, but may complicate the implementation process. In Panama, COAGRO was formed by joining a number of pre-existing cooperatives into a

federation. Several problems highlight the fragility of organizations formed in this manner. Marketing was complicated because the cooperatives produced different products. Supply operations were also complicated because the existing cooperatives had already developed strong ties with suppliers. Although the federation often offered better prices for supplies, other suppliers offered fringe benefits to cooperative managers that were more attractive.[60]

Amount of Resources

A study of cooperatives commissioned by the Organization of American States observed that "most technical assistance projects suffer from two common maladies, they are: (a) under-financed and (b) programmed for too short a period of time."[61]

Because of the wide variation in agricultural cooperative projects, it is not possible to talk of an optimum resource or input level. Projects have ranged from less than $50,000 in the case of an agricultural cooperative federation project in Ecuador to hundreds of millions of dollars in the large IFFCO fertilizer cooperative, vegetable oil-seed cooperatives, and dairy cooperatives in India. Although the latter projects have affected more people, produced more visible results, and been more stable than the former, the goals and objectives of the various projects are so different that to argue that one level of resources is more effective than another is meaningless. Project resources should be adequate in kind and amount to achieve the stated goals of the particular project. In many cases, they have not been.

The incidence of inadequate funding of cooperative projects is very high. In Honduras, the absence of adequate capital for IHMA, the agricultural marketing board, to purchase grains as planned in the project design, has severely affected the basic grains cooperatives. In India, the vegetable oil project greatly underestimated the amount of resources needed to purchase the oil

seed from member farmers. In Ecuador, the Agricultural Marketing Project failed to provide even minimal seed capital for marketing, transportation, or the purchase of scales to weigh the products bought from the members. These are only a few examples, but they illustrate a common theme: in the absence of adequate project resources, there is little chance of creating successful, sustainable institutions.

Timing

There is a persistent bias in project design to underestimate the time needed to create sustainable institutions. For example, the project document for the PUSPETA project in Indonesia promised that "at the end of the three-year development period, we expect the project to be able to function as a self-sustaining cooperative enterprise."[62] Less than four years later, the evaluation reported that "the project document is unrealistic in its expectations that the very ambitious objectives could be achieved within the three- year life of the project."[63]

The cooperative movement argues strongly that effective institution building takes a minimum of a decade. IFFCO's plant in India took 15 years from conception to conclusion. In Uganda, continuous long-term technical assistance was provided for 10 years to develop a sustainable cooperative infrastructure. Development practitioners argue that this holds true for any institution-building project, provided, of course, that it is a good project in the first place.

Nonetheless, the U.S. Congress and the Executive Branch have a limited time horizon in terms of willingness to wait for sustainable results. A common way of dealing with this impatience is to phase projects accordingly, regardless of the reality of these phasing plans.[64] Pressure for quick results is just as great by host governments, and this attitude also contributes to overly optimistic time horizons.[65]

The design constraint that projects must be completed within a three- to five-year time frame places an unrealistic burden on the development process. If cooperative development is to be effective, the time frame must be lengthened. This change will not necessarily entail substantially more resources allocated to cooperative development, but a more rational use of resources spread over a longer period.

Seed Capital

Seed capital represents a paradox in the cooperative institution-building process. On the one hand, new cooperatives seldom have the accumulated reserves and business volumes to achieve viable levels of business activity without external seed capital. Projects such as the LCS project in Rwanda, the vegetable oil-seed project in India, and FENACOOPARR in Ecuador could not have achieved significant market penetration without large sums of external capital to purchase member produce. Seed capital is important at an early stage in the cooperative's development because it allows the cooperative to demonstrate real benefits and legitimacy to members, potential members, and suppliers.

On the other hand, the history of rural development projects indicates that external credit resources are often considered as government donations or welfare transfers rather than loans. Externally supplied credit is often not viewed as belonging to the members, and management of externally supplied credit and repayment rates on those credits have historically been poor.

With the risks of devaluation and maintenance of value requirement, hard currency loans usually represent too great a risk for newly formed agricultural cooperatives in the developing world. Only if the cooperative is involved in selling products

in an export market, and is able to capture the foreign exchange from those transactions, can it afford the risk of hard currency seed capital loans.

## The Treatment of Risk in Project Design

Agriculture is a high risk business. Not only is there a risk from natural phenomena such as droughts, floods, and storms, but there is also a risk in applying new and unfamiliar technologies, anticipating changing market conditions, pricing, and a host of other factors. Agricultural cooperative projects invariably work with a sector of the population for whom the consequences of failure are severe. The very nature of the projects invariably increases the risk to the participants.

Who should assume the risk and how it can be reduced are serious issues for rural project designs. The risk of failure in development projects is most often borne by the local cooperative and its members. Project designs seldom include mechanisms for reducing or spreading that risk.

A large-scale rice cooperative project in Ecuador (Small Agricultural Enterprises Promotion Project) did not provide rice storage facilities as part of the project. When rains came early one year, the entire crop (and annual income) of the members was lost; the farmers were unable to repay their bank loans, and were declared ineligible for future loans. The program had succeeded in changing these small-scale farmers from day laborers to capital-intensive farmers, but they bore the entire risk of failure themselves.

In Honduras, the basic grains cooperatives were stuck with large losses when the national marketing agency was unable to pay for crops as planned. There were no provisions in the project design to reduce this risk for the farmers, and they suffered major losses.[66]

The fruit and vegetable (model) cooperatives also suffered significant losses when Mexican melons reached market a month earlier than normal and depressed prices from an estimated $26 per box to less than $13. In this case, the AID extended credit for an additional year, even though the project design had not foreseen this possibility.[67] In most cases, the attitude of AID and other donor agencies is to let the farmers and cooperatives absorb the losses.

Donor agencies, CDOs, and project designers should be more aware of the nature and consequences of the risks inherent in the design of agricultural cooperative projects. These typically include:

- Devaluation risks of hard currency loans;
- Catastrophic risks of storms, floods, drought, and other natural disasters;
- Debt risks associated with increasing the debt burden of poor farmers and weak institutions;
- Technology risks of inappropriately applied technology; and
- Marketing and pricing risks involved with complexity of agricultural marketing.

## The Role of the Host Government

### Compatibility of Objectives

The U.S. cooperative movement views cooperatives as private sector and business oriented. Host governments, however, often view cooperatives as a means of delivering services to, or extending government control in, rural areas. In Egypt, for example, the government had traditionally used cooperatives to implement and enforce government policies. With the UCS project, the government cooperative board reviewed farm plans, set quotas, and approved credit. Membership in the cooperatives was

mandatory, but the cooperatives were given little leeway to act as independent businesses and the members had little control over the operations of the cooperatives.[68]

This also appeared to be the case with the LCS project in Rwanda. With CCU in Swaziland, a country in which a large percentage of the population is rural, the government had used cooperatives to channel services to the rural population. By so doing, governments hope to win the political support of the rural population. In Indonesia, cooperatives have not been particularly successful because, at one time, the government had used cooperatives for political purposes.[69] Under these circumstances, when the services provided by the cooperative are viewed as a government responsibility, there appears to be little chance of creating independent, sustainable institutions.

Compatibility of Priorities

At times, the requirements of successful, independent, business-oriented agricultural cooperatives are in direct contrast to the development priorities of the host government. This has particularly been the case in Africa where, for the past 25 years, governments have pursued development strategies designed to favor urbanization and industrialization -- often at the expense of the rural sector. Government marketing boards, pricing policies, and development policies favor urban consumers. Prices to rural producers often represent negative real rates of return.

Competition with Government Agencies

Agricultural cooperatives, particularly those engaged in marketing, often find themselves in direct competition with official and parastatal government organizations. In Uganda, the dairy cooperatives were in completion with a government-sponsored

dairy industry corporation, which was supported by the minister of agriculture. Six of 11 cooperatives were abolished by the minister.[70]

Subsidies and Benefits

In many developing countries, the ability to conduct business depends on government-provided subsidies, exemptions, or special benefits. This is true whether the organization is a cooperative. Because exports are the only means of generating foreign currency, export licensing is rigorously controlled by the government, and having an export license or tax exemption can be an important source of power and income. In Paraguay, for example, since UNIPACO was exempt from export duties on cotton, it could sell the unused portion of its export quota to private exporters at a considerable profit.[71] In Indonesia, the Bureau of Logistics offered a price differential on cooperatively produced sugar and required government programs to purchase sugar cane from the cooperatives.[72]

Host Government Resources

Project designs often depend on substantial support from host governments. But even host country blessing does not guarantee that much support will materialize.

In Egypt, the UCS project had to operate with limited financial resources; staff seconded by the government were often inexperienced, which meant that the U.S. technicians had no effective counterparts; and financial resources were limited because no program was established for UCS to generate income. Capitalization funds deposited by the member cooperatives, the interest spread from the credit program, and limited margins on export potato sales were inadequate to fund the organization.[73]

The LCS project in Rwanda encountered similar problems. Although the government originally seconded 12 people to the project, a government reshuffle in 1981 removed serveral key personnel. Two years later, they had still not been replaced with qualified, experienced personnel. Furthermore, the government had not supplied personnel with the necessary resources to visit the cooperatives and had been unable to honor its purchasing commitments.[74] In the early stages of project implementation in Indonesia, the government was unable to provide funds for either working capital or income-producing projects. PUSPETA's working capital now comes from the sale of PL 480 commodities.[75]

Government donation of land to the vegetable oil project in India did not materialize, forcing cancellation of the planned demonstration farms and reducing the project's expected impact on seed improvement and useage of improved farming technologies.[76]

In Honduras the government marketing agency was unable to buy what it had promised or to support the price to FECOAGROH farmers above market levels at harvest because of liquidity problems. As a result, a large proportion of these products had to be sold on the free market at considerably lower prices.[77]

This inability or unwillingness of the host government to provide its promised share of development resources -- a problem that is endemic to most development projects -- has prompted the U.S. cooperative movements to keep government involvement to a minimum.

Excessive Government Support

Too much government involvement -- even when cooperatives are not viewed primarily as service delivery mechanisms -- can seriously jeopardize the chances of achieving sustainability. A

1978 conference on cooperatives and rural development concluded that heavy state interference is inimical to the establishment of successful cooperatives.

The present agricultural cooperative project in Honduras, has depended on outside institutions -- including AID, BANADESA, and IHMA -- for its survival. The project's success to date has depended on AID's loan to BANADESA and the artificially high prices paid by IHMA for agricultural commodities. In the opinion of a recent evaluation, elimination of any one of these key institutional players could prove costly, if not ultimately disastrous, to the future of the project.[78]

Extraneous Political Events

Although difficult to predict and impossible to control in a project design, political events unrelated to the cooperative can have severe consequences for it. In Uganda, for example, the expulsion of Asians from the country by the Amin government in the early 1970s removed the major purchasers of poultry from the country. Sales for the poultry cooperatives dropped from more than 1,200 birds per day to less than 400.[79]

Apolitical Cooperatives

The organization of rural people creates a potential power base. In these cases, a successful cooperative movement may arouse antagonistic feelings on the part of the government. As documented in the UNRISD study: "If the cooperative exhibits too much self-reliance and independence, the government may suspect subversion. Consequently, cooperatives emphasizing economic ends may have more social impact in the long run."[80]

In Tanzania, rural political leadership and opposition to central government policies was focused in the cooperatives. As a result, in the process of forcing rural populations to move into villages, the government abolished all cooperatives.[81]

In FECOAR's early years, the government was neutral toward the project, although the minister of agriculture did reputedly warn AID that the government did not want to see the development of a political pressure group that could become broadly representational and begin to apply political pressure.[82]

Complete independence from the government is neither realistic nor desirable. Participants in the 1984 Cooperative Advisory Group meetings pointed out several legitimate political roles that cooperatives could and should play in local politics. These include:

- Representing member interests in negotiating quotas, price levels, and other economic issues with the central government;
- Pressuring government to change policies that affect the economic and financial well-being of the cooperatives and their members;
- Supporting policies and actions that lead to an open economy that permits cooperatives to act as independent private businesses; and
- Opposing restrictive price controls.

The conclusions reached by the participants generally stressed that partisan involvement in politics by cooperative organizations and leaders jeopardizes the long-range interests and viability of the cooperative, whereas pragmatic participation in issues directly related to the economic and social function of the cooperative is both valuable and necessary. Effective action to support legitimate objectives requires that the cooperatives not feel dependent on, or patronized by, the government.

### Need for Policy

For these reasons, the need for a positive government policy on cooperative development was underlined for cooperative development projects in Egypt, Rwanda, and Swaziland. As the COPAC study emphasized, the government has to be committed to cooperative development and make the necessary policy changes. One strength of the IFFCO project was that all the major policy decisions were agreed to by the involved parties before any money was committed.[83] Where it proves impossible to influence policy prior to implementation, data should be gathered documenting the policy's effect on project performance and this information used to influence policy or to alter the project design.[84]

Thus, the government's attitude toward and support of cooperatives will have a substantial impact on their ultimate success and viability. Government does not need to have a strong pro-cooperative policy or provide substantial resources. But it must at least tolerate private organizations and not adopt adverse pricing, marketing, or other policies.

## Project Economics

### Resource Endowment

The Cornell study found that, in general, environmental constraints do not shape the success or failure of local organizations. What they make of their situation is more important than any particular environmental asset or liability. In some respects, they perform better under adverse physical or social circumstances.[85] Nonetheless, the indications are that viable cooperatives need a certain minimum level of resources with which to start.

To be effective, cooperatives cannot comprise only extremely poor members. They need a mix of members with low and medium income to have viable level of resources with which to work. In the Indian examples, an adequate volume of product was the critical variable. In the case of the dairy cooperatives, participation by the landless was offset by the membership of larger farmers, thus giving a sufficient volume of production. The case of the sugar cooperatives was different. Although landless laborers did not share in the profits of the sugar factories, they benefited from the availability of factory jobs. In addition, they also benefited from the stimulus to economic activity caused by the success of these factories. For example, over a nine-year period, 12 percent of the landless laborers interviewed had bought land during that time, thus joining the ranks of the small farmer.[86]

Further evidence to substantiate the importance of this membership mix is provided by the example of La Merced, as well as the results of the factors contributing to the success of local organizations. Two principal factors were high agricultural potential and unequal landholdings. These, in fact, served as a proxy for the existence of a group of dynamic and progressive farmers, whose presence and involvement would increase the likelihood of sustaining the benefit flow.[87]

The long-term success of a cooperative venture requires that the membership have a sufficient resource base to support the business activities of the cooperative. Even if the primary focus of the project in on benefiting a low-income sector of the population, the creation of a viable cooperative is easier if the membership also includes higher-income farmers and landholders, to provide the necessary physical and human resources. A major criticism of donor agency (particularly AID) policies is that a myopic focus on the poorest of the poor and extremely marginal groups often lead to project designs that create institutions with little or no chance of succeeding.

Income Generation

If a cooperative development project is to be sustainable, it must be able to generate sufficient income from its activities, not only to cover operating costs but also to finance additional activities. Too often income projections for agricultural cooperative projects are based on assumptions that do not prove out during implementation. As an example, Fledderjohn reported in Guatemala that:

> Production credit is a losing proposition for the regionals and input sales have generated very low gross margins in the past two years. Machinery and trucking services commonly barely break even and marketing fees contribute a small net margin.[88]

Within the cooperatives' regular business activities, production credit rarely covers costs. ACDI calculates that a well-run cooperative has to operate on a margin of 16 points to break even on a small farmer, short-term agricultural credit service.[89] Better returns can generally be realized in marketing and input supply, with the necessary volume, but cooperatives often have to deal with structural constraints over which they may have little control. These include government pricing policy (as in Indonesia and Egypt), no market differentiation for quality products (as in Egypt and elsewhere); and a well-organized private sector with which it is difficult to compete (as in the Philippines). Marketing activities have had better success when the commodity involved is either an export crop (as with cucumbers and melons in Honduras or potatoes in Egypt) or one over which the government does not exercise control (as with milk in Indonesia).

The evaluation of cooperative development activities in Panama, including COAGRO, concluded that the most critical area for improving project benefits to small farmers lay not on the production but on the marketing side:

> No production loan should ever be approved for a cooperative or for its member farmers until a marketing loan for the sale of the commodities to be financed has been completed and tentative buyer commitments obtained. In a word, marketing -- not production -- must become the project's foremost priority.[90]

This was one principal reason why the IFFCO project was successful: the market and distribution system for fertilizer was established before construction of the first fertilizer plant had been completed.

There are additional reasons for emphasizing marketing and processing. In Tendler's view, marketing and processing are easier to manage than credit and cooperative stores because they offer the following management advantages:

- Graft is less likely since the product belongs to the member. This is not necessarily true for credit funds or the merchandise in a cooperative store;
- Pricing policy is easier since a marketing cooperative can charge what the market will bear;
- There is little problem with credit repayment; and
- The technology involved in processing is specialized and intensive. Hence, the task can be performed effectively without too much meddling from the membership.[91]

The apparent advantages may not be so clear cut. Cooperatives, like other organizations, are often constrained by government price controls and cannot charge what the market will bear. Overhead costs (including transport, labor, and fuel) for marketing and processing may not be directly visible, but this does not give those activities a comparative advantage over credit and merchandise activities whose overhead costs are more visible and more subject to comparison with prices in the marketplace.

Successful processing and marketing depend on a variety of factors, including the type of product involved, the demand, and the profitability of that particular product. The Anand dairy cooperatives in Gujarat and the cooperative sugar factories in Maharashtra, when compared with cotton and tobacco cooperatives in these states, were found to be more successful for three major reasons:

- Both sugar cane and milk are highly perishable. Thus, the producer needs a reliable buyer and is, therefore, inclined to be loyal to an organization that provides a reliable market;
- Both milk and sugar cane derive large economies of scale from bulk processing; and
- These economies of scale are achieved through the participation of both small and large farmers. It is therefore in the common interests of both groups to sell as much of their product as possible to the cooperatives.[92]

Thus, for both economic and managerial reasons, cooperatives organized around products that derive large economies of scale from bulk marketing or that are technology sensitive are likely to be more successful than those that are not.

Organization around a Key Resource

The most successful examples of agricultural cooperatives are organized around a key resource that provides a valid basis for a business enterprise. They appear to be most successful when they are organized around a key stage in the production and marketing cycle that derives large economies of scale or that is technology sensitive -- both of which require an institutional structure to achieve. This is typically in agro-industry, storage, marketing, and export-oriented cash crops:

- Rice cooperatives in Ecuador's Promotion of Small Agricultural Enterprises Project were very successful during the transition from traditional independent farming methods to large-scale irrigation and water control, which required large-scale mechanization. They failed when they did not provide adequate storage facilities to protect the harvest.

- IFFCO and the dairy, sugar and oil-seed cooperatives in India are based on key agro-industry and processing operations. For IFFCO, the key resource is a critical farm input that can be produced and distributed only on a large scale. For the dairy and sugar cooperatives, the key resource is the ability to process a perishable product efficiently.

- The key resource of the LCS project in Rwanda is the cooperatively owned grain storage facilities. This resource provides short-term liquidity for farmers and allows the cooperative to control the timing of the marketing.

- The current fruit and vegetable cooperatives in Honduras are strategically located in high-profit export marketing.

In all of these cases, the key resource of the cooperative was a process or activity that required technology or a scale of operation beyond the capacity of individual farmers. And, in all cases, the key resource involved marketing or processing, frequently in association with export crops.

Where the key resource is inadequate, cooperative organizations have seldom succeeded. In particular, traditional subsistence or local market crops and alleged middlemen profit margins have rarely constituted a sufficient economic base to justify a business organization and sustain a viable cooperative. Thus, the Agricultural Marketing Project on Ecuador found that the spread earned by wheat marketers was not sufficient to support a cooperative, and the basic grains cooperatives of Guatemala and Honduras could not achieve sufficient increases in production or marketing to sustain the cooperatives. COAGRO in Panama experienced financial difficulties for years because, at least

partially, its member cooperatives were engaged in such a wide variety of activities that there was no key resource on which the organization could concentrate.

Government Pricing Policies

Government pricing policies can have a severe impact on the financial viability of an otherwise economically sound cooperative enterprise. Almost universally throughout developing countries, governments have pursued policies designed to promote urbanization and industrialization. Internal prices for agricultural commodities have been kept low, by policy, to finance foreign exchange, subsidize industrialization, and maintain low food prices to consumers in urban areas. In this situation, it is difficult for cooperatives to become financially viable.

Externalities

Although agricultural cooperatives are designed to benefit their members exclusively, in fact most cooperatives transact business with the general public. Benefits from group purchasing, negotiated prices, and volume discounts often accrue to non-members as well as to members. This inability to maintain exclusivity (the spill-over or free-rider issue) makes it possible for people to benefit from the cooperative without bearing any of the risks or costs of cooperative membership.[93]

Selling to and purchasing from non-cooperative members is not unique to developing country cooperatives. In fact, basic cooperative principles state that cooperatives will buy from and sell to the general public; only patronage refunds are an exclusive benefit for members. There are reasons in addition to the principle of cooperatives transacting business with the general public. Doing so increases the volume of activities, permiting cooperatives to achieve economies of scale and efficiency. Transacting business with non-members also increases the potential

return to members. Canar Indians in the Agricultural Marketing Project in Ecuador learned quickly that restricting the number of members in the cooperative and purchasing wheat from non-members would increase the profitability to the members, as only members participated in the patronage refunds. Finally, selling to and buying from the general public serve to publicize the cooperative to non-members. Indeed, a cooperative without these externalities will have little opportunity to grow, attract new members, and become financially strong.

## Organizational Linkages and Participation

### The Federation Model

The federation approach to cooperative development has been attempted in many parts of the world -- Ecuador (FENACOOPARR), Paraguay (UNIPACO), Panama (COAGRO), Honduras (FECOAGROH), Egypt (UCS), and Indonesia (PUSPETA) -- because it combines the benefits of both solidarity and scale.[94] Although conceptually sound, this approach is difficult to implement. Many federations have either had difficulty or failed because of an insufficient business rationale for their creation. COAGRO, for example, could not effectively market products for its member cooperatives because of the diversity of products marketed by those cooperatives. In other cases, such as the Agricultural Marketing Project in Ecuador, the primary societies were not large enough or did did not have sufficient business volumes to support a higher-level organization.

In other cases, the federation does not offer a sufficient benefit to its member primary societies to capture the business activity of those societies. Although several adverse factors had contributed to the high delinquency rates that eventually overcame FECOAGROH, the major reason for the failure of the federation was that it had become redundant. More than half the value of input sales, credit, and group marketing was handled

directly by the affiliated cooperatives without the intervention of the federation. COAGRO had difficulty breaking the established supply and marketing relationships of its member cooperatives and convincing them to purchase and sell through the federation.

There often appears to be an underlying assumption that individual cooperatives cannot fulfill their full potential unless affiliated with a federation. Federations offer decided benefits of scale in some instances. However, when the federation is not founded on a solid base of primary societies that generate a sufficient volume of business and income to support the federation, or when the services offered by the federation do not have a strong business rationale, federations have little chance of succeeding without continuous external support and subsidy. In some situations, the creation of a federation poses a basic dilemma in that the interests of the federation may not coincide with those of the primary societies.

To avoid many of these problems, two suggestions have been made:

- Refrain from forming a federation until that initiative flows up from the groups themselves; or
- Subsidize assistance to primary societies by an organization that does not depend on these groups for its income, for example, a private sector or private voluntary organization or a federation that does not depend on dues and margins on business volumes for its income.[95]

## The Regional Model

The regional approach uses economies of scale to overcome the constraints to expansion of services to more communities. Members do most of their business with the local organized (but unregistered) group. This gives them the requisite feeling of familiarity and control. The president and committee of the

local group screen credit applicants, endorse borrowers, handle local fertilizer and seed storage distribution, and provide a number of other local services.

The presidents of the groups attend periodic meetings at the central cooperative as an advisory group, forming an invaluable channel of two-way communications between the regional cooperative and its scattered members. The regional also has two or three field agents to perform extension work, help members prepare farm plans and loan applications and collect repayments. These field agents usually work through the local group. By providing business services to local groups, the regional cooperative can achieve a viable scale of operations.

### Ongoing Relationships with the Cooperative Development Organizations

Unfortunately, the nature of foreign assistance-financed projects frequently impedes future contact between the technical assistance provider (the CDO) and the newly formed or assisted organizations. Assistance is provided under a contract, and once that contract ends there is no provision for follow-up support or short-term technical assistance.

There have been exceptions. CLUSA has maintained an ongoing relationship with the fertilizer, dairy, and vegetable oil cooperatives in India for more than 25 years. ACDI has a permanent presence in Central America, and has provided some ongoing support to cooperatives established earlier through bilateral agreements. CLUSA has maintained continuous contact with COAGRO in Panama for 15 years.

It is seldom possible to develop a completely independent and self-sustaining institution as complex as an agricultural cooperative or federation in a country within the time constraints of a donor-funded project. As a result, the absence

of a mechanism to provide ongoing, short-term assistance to a new organization once a bilateral program has ended is a serious constraint to long-term success.

## Management, Participation, and Internal Issues

### Management Skills and Issues

Agricultural cooperatives are complex business organizations. Successful management requires the ability to forecast market conditions, plan and manage credit, plan and manage working capital, price inputs and other goods properly, manage and distribute highly perishable products, negotiate prices and terms, and a host of other business management skills. One major problem facing agricultural cooperatives in the developing world is the lack of a sufficient pool of trained personnel from which to draw the necessary managerial talent.

The absence of adequate financial management skills, particularly in terms of working capital management, cash-flow management, and leveraging, among new cooperative managers and staffs has been one major source of difficulty for agricultural cooperatives. Managers (and donor agencies, CDOs, and even cooperative advisers) have often misunderstood the concept of operation at cost in cooperative projects. Cooperatives must operate at replacement cost, and in an inflationary economy that can mean substantial markups over the historical costs of goods and services. The failure to understand this concept has too often led to an inability to refinance inventories and the general decapitalization of the institution.[96]

Numerous other examples exist of the impact of this lack of managerial skills on the success of cooperatives. In Uganda, the manager of the chicken cooperatives had had no experience in marketing and shipping a perishable product such as fresh chicken. Attempts to market these products to Zaire failed as a result. In Paraguay, UNIPACO chose to purchase and resell

soybeans (in effect, speculating on the market) rather than acting as a broker. When the market turned down, the federation was faced with all of the losses and went bankrupt.[97]

Cooperative education has often stressed the participatory, social, and philosophical dimensions of cooperatives. What is needed, however, is a much greater emphasis on management skills, finance and budgeting, planning, and project management.

Credit as a Cooperative Service

Credit is typically the most universally demanded service by agricultural cooperative members.[98] Yet credit has been a constant problem for most agricultural cooperatives. Tendler concluded that agricultural cooperatives should not become involved in credit operations.[99] Fledderjohn stated that ". . . credit is more like a nagging headache, a necessary evil, a losing proposition that threatens the life of cooperatives constantly."[100]

There are two inherent problems with credit operations in agricultural cooperatives. First, credit functions typically operate at margins that are not financially viable:

> The consensus is that the costs of administering the service, including field visits, paperwork, accounting, allocated overhead, collections and losses (conservatively estimated at about 5%) are about 16% above the cost of capital. If this is close to the real figure, cooperatives are regularly losing over 10% on lending volume in the credit business . . . . The hard fact is that credit operations consistently cost more to administer than the margins they produce. Adversities such as weather-damaged crops, slumping markets political upheavals and high prices for inputs contribute to delinquencies and uncollectables which continually drain the lifeblood capital from the firms.[101]

The second major problem of credit programs in agricultural cooperatives is the high rate of delinquency. High delinquency rates led to the demise of FECOAGROH, and have plagued cooperatives in nearly every project.

There are several possible explanations for the problems faced by agricultural cooperatives in attempting to manage credit programs:

- Institutions generally manage internally generated resources better than they manage externally supplied resources. In most new agricultural cooperative projects, the credit is supplied by external sources.
- Because credit, at least initially, is usually provided by outside organizations (development agencies), agricultural cooperatives are highly leveraged in their credit operations at the same time that they are still financially weak institutions. Even moderate rates of delinquency can have a substantially negative impact on an institution in this situation.
- Because credit is normally provided by outside sources, members often view it not as a scarce resource, but as a government-provided benefit. In areas where previous government-sponsored credit programs have existed, there is an especially strong tendency among members to believe that the credit is a gift that does not have to be repaid.
- Organizations are usually more effective in managing activities that are perceived to be essential to the main purpose of the organization itself. For most agricultural cooperatives, credit is viewed as a peripheral, rather than main, activity of the cooperative, and is not managed as vigorously as is needed to maintain a viable credit function.

Credit programs in agricultural cooperatives are generally more successful when:

- The source of credit is internal rather than external to the cooperative;
- Credit is granted for cash crops (especially export crops) rather than traditional or subsistence agriculture;

- Credit is granted for products that earn hard currency in export markets; and
- The cooperative has some control over the marketing of the product, so that loan repayments may be collected through the marketing process.

## The Quality of Leadership

Finding qualified, dedicated managers for rural cooperatives has often proved a difficult task. As the UNRISD report observed, "In Africa and Latin America, cooperative leaders were often co-opted by vested interests. Leaders who pilfered funds and put personal advancement before the interests of the cooperative were common."[102]

## Government Participation in Management

In many projects, the staffing for the cooperatives was provided by the host government's department of cooperatives. Although beneficial to the cooperative in the sense that more qualified personnel can be provided at a time when the cooperative cannot afford to pay trained managers, the practice has drawn sharp criticism from both cooperative experts and evaluators. When the manager of a cooperative is a government employee seconded by the government, his allegiance often lies more with the agency that employs him than with the members of the cooperative.

Member Participation

One comparative advantage of the cooperative model is its participatory approach to rural development.[103] In the case of a cooperative, this refers specifically to the structure of the cooperative; local ownership; and development of local talents, managerial and otherwise.

In many of the cooperative interventions reviewed, the approach has been more top-down and directed than participatory. An early evaluation of the LCS project in Rwanda, conducted approximately 18 months after project start-up, observed:

- It was not clear to what degree farmers perceive the benefits of joining the cooperative, particularly since the buying and selling services are available to members, non-members, and traders alike; and
- Small farmers tend to participate little in cooperative leadership and management decisions since the leaders are usually members of the local elite, regarded by ordinary members as those most suited to make the necessary decisions.[104]

In Indonesia, evaluators found that the KUD (local or primary society) often consists of a small group, usually not farmers, who operate the primary society like a small private business, primarily for their own benefit. The evaluation recommended more representation by primary society members:

> PUSPETA management should speed up its plan to increase the number of KUD representatives in its Board of Directors. This is important to create a feeling among KUD members that PUSPETA is part and parcel of the cooperative movement in the region and not a business entity separated from the KUD.[105]

In the Indian vegetable oil-seed project, the links back to the producer members were "not particularly strong." Membership was not "necessarily equivalent to majority ownership of the cooperative oilseed processing plant or to the producers who

supplied the raw materials."[106] An evaluation of the current model cooperative project in Honduras recommended that steps should be taken to provide cooperative members with information about the status of their cooperative: "As of now, they know very little, if anything, about their cooperative."[107]

In many of these instances, the distinct impression is given that, rather than dealing with a cooperative membership, the organizations are, in fact, dealing with a captive audience or, as one commentator put it, a consumer interest group whose main responsibility is to buy the services offered. Although the member may have the freedom to choose whether to purchase or use the goods and services provided, there is at least a question in this situation if the cooperative form is any different from any other form of business enterprise.

But it may also be that most studies of agricultural cooperatives have not accurately measured participation because it is not easy to measure. The real issue in participation is not attendance at annual meetings, participation in committees, or voluntary labor; it is the ability of members to affect decision making in periods of crises or major decisions. This is not typically measurable in a normal study or evaluation, and is not likely to appear in the results. The unique contribution of the cooperative form of rural organization is that cooperatives universally place a high premium on local participation and involvement, and spend time and effort educating members in the importance of participation.

## SUMMARY AND CONCLUSIONS

This study has commented on the negative impact of excessive government influence in a cooperative movement. Paternalism; lack of responsiveness to local initiative, conditions, and people; and incompatible objectives and priorities are apparent

consequences when cooperative organizations are run by government-supplied managers, or when government has an excessive equity position in a cooperative movement.

For the most part the strong role of government in cooperatives is a phenomenon of the British colonial experience. The registrar of cooperatives in British colonial governments was a powerful position that was incorporated into the governmental structure of the newly independent countries. The cooperative departments assumed a much less active role in promoting and managing cooperatives in French colonial countries, and in Latin America they are particularly weak and ineffective.

At the same time, there are more cooperatives, engaged in a wider variety of activities, involving more members per capita in the former British colonies than in any other part of the developing world. The active support and direct involvement of strong state cooperative agencies have succeeded in establishing large numbers of institutions.

One question is whether the institutions are really cooperatives. To many people in the cooperative movement, they are not; they violate one or more of the basic tenets of cooperative organization and membership control, and often function more as branches of state-run enterprises than as locally controlled private institutions. They are often not economically independent or viable, and depend on government budget subsidies and staffing support. If the goal of the development activity is to group people into economically serviceable units, and provide a degree of institutional stability, this form of cooperative development has certainly been successful. If, however, the goal is to foster and develop independence, self-reliance, and local control and participation in decision making, the centrally controlled and supported cooperative program appears to compromise those objectives.

## Basic Requirements for Successful Agricultural Cooperatives

The experiences reviewed in this study suggest general conclusions about the factors that contribute to success in agricultural cooperative development projects:

- Agricultural cooperatives should be formed only on a sound and viable business base. Organizing an agricultural cooperative for social, political, or welfare purposes will not produce a self-sustaining, economically viable organization.
- To be successful, an agricultural cooperative must have a sufficient resource base to permit financial viability.
- An agricultural cooperative has a greater chance of success when it is organized around a key resource, especially a key stage of the production or marketing process that derives significant benefits from economies of scale or application of technology that the cooperative can provide.
- The businesses of the members themselves must be economically viable; merging non-viable units into a cooperative will generally not produce an economically viable cooperative.
- The government must be willing to at least tolerate and permit private institutions to operate as economic business units.
- Government policies and priorities must permit rational pricing decisions on the part of the cooperative.
- Federations and higher-level organizations must be established on a base of strong, viable primary institutions if they are to survive. Furthermore, second- and third-level organizations must have a strong business rationale if they are to succeed.

In addition, participants in the June 1984 Cooperative Advisory Group meetings identified other factors that they felt were equally important, but that were not identifiable in the literature or interviews concerning the specific projects studied:

- Only users of cooperative services (either buyers of cooperative supplies or vendors of products and services purchased by the cooperative) should be eligible for membership in the cooperative. Government and government employees should not be members of the cooperative.

- All of the equity in the cooperative should come from the members themselves; government should hold no equity positions in the cooperative.

- Agricultural cooperatives should maintain a high equity/debt ratio, even if external funds are available.

- The entire board of directors of an agricultural cooperative should be elected by the members; there should be no nominated or appointed board members. There should also be no outside participation on the board; only members should be eligible to be board members.

- Agricultural cooperatives should be professionally managed, and paid staff should be accountable only to the membership. There should be no secondment of government personnel to staff cooperatives.

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# CHAPTER TWO

# CREDIT UNIONS

## INTRODUCTION

Almost 17,000 strong, comprising 6 million members in 68 countries, formally chartered credit unions are generally considered a successful form of local organization in the develping world. These credit unions have generated local, member-owned savings and deposits of nearly $1.5 billion, and annually lend $1.7 billion to their members.[1]

In addition to these formally chartered credit unions that are affiliated with the World Council of Credit Unions (WOCCU), there are at least 100,000 pre-cooperatives, local savings societies and other similar organizations, and non-affiliated credit unions for which data are not available. Thus, cooperative credit institutions have a well-established place in the economic and social life of the developing world.

### The Credit Union Model

The promotion of credit unions as formal cooperative financial institutions has represented a blueprint approach to institution building.[2] Regardless of the donor agency or implementing cooperative development organization, the credit union structures promoted in the developing world -- including organizational structure, committee forms, volunteer leadership, concept of a common bond, by-laws, model legislation, and even interest rate structures -- are based on the model of credit unions initiated by the early Raiffeisen and Schulze-Delitzsch societies of Germany.

## The Worldwide Credit Union System

WOCCU, including its 11 affiliated regional confederations and associated free-standing national federations (often called leagues or associations), is committed to establishing a vertically integrated, worldwide credit union movement. In this model, local credit unions belong to, pay dues to, and control a national federation, which supports and provides essential services to them. These federations belong to, pay dues to, and control a regional confederation, which provides services to them, mobilizes international resources to support national programs within the region, and represents their interests on an international level. The regional confederations belong to a worldwide apex organization, WOCCU, which mobilizes resources internationally, provides for the exchange of information and technology among its members, and assists in training and problem solving. The goal of this international credit union movement is to have self-sufficient credit union movements, effectively and efficiently providing needed financial services to credit unions members, in each country of the developing world.

The structure of the credit union movement is based on membership, with higher levels of the organization controlled by and responsive to lower levels. Unlike most examples of development assistance, national credit union movements receiving technical assistance through international donor programs belong to, financially support, and set the policies of the organizations that provide the technical assistance.

## Stages of Credit Union Development

Credit union development in a country typically evolves through five stages. Initially, there is a period of development of individual credit unions. In many instances, this first stage was privately sponsored by missionaries, expatriate clergy, and other foreigners; in others, it was a pilot project sponsored by

the U.S. Agency for International Development, the Peace Corps, or, prior to 1960, by the World Extension Division of the Credit Union National Association (CUNA), International.

The second stage is an expansion phase, often supported by an outside development agency. AID-supported projects are usually bilateral programs, involving CUNA/WOCCU as the implementing institution.[3] The objectives of this stage are to secure an adequate credit union law and create a substantial number of successful individual credit unions in the host country.

The third stage involves the creation of a national-level federation of credit unions. This service organization is to support the continued growth, expansion, and viability of the credit union movement in the country. Local credit unions make up the membership of the federation, which is designed to become self-sufficient through dues and income-producing services. There may or may not be intermediate-level structures between the local credit unions and the national federation. As a slight variation in this approach, the French Canadian credit union development organization -- Societe de Developpement International Desjardins (SDID) -- prefers to work with sub-national regional organizations in this stage and to postpone the creation of national federations to a later phase.

The fourth stage of credit union development is one of consolidation. Weak credit unions are liquidated or merged with stronger ones to form viable entities. Membership promotion and expansion are de-emphasized in favor of solidifying the movement and developing the self-sufficiency of the national federation and its member credit unions.

Institution strengthening, the fifth and final stage of credit union development in a country, witnesses a return to promotion and expansion, with a corresponding increase in the variety and sophistication of services offered by both the local

and the national organizations. Although these five stages represent an idealized model, the basic concepts are designed into every long-term credit union development project.

## The Study Sample

Because the credit union model focuses on the development of national credit union movements, the primary unit of analysis for this study is the national movement of each country that has received international assistance to develop credit unions. A secondary emphasis is on the regional confederations and sub-national credit union organizations.

This study focuses on the affiliated credit union movement -- formally organized credit unions that are affiliated through national federations and regional confederations to WOCCU. When possible, other pre-cooperative and informal credit and savings organizations were examined to place their experience into a more general developmental context.

Although credit unions exist in 68 developing countries, major assistance projects (measured in terms of resources committed and time spent) have been carried on in only 26 countries (see Table 1). The programs in Bolivia, Cameroon, Ecuador, Honduras, Lesotho, and Paraguay, and the regional confederations of Africa, the Carribbean, and Latin America, were selected as the primary sample for the study. However, supporting information on programs in most other Latin American countries, as well as in Kenya, Liberia, Sierra Leone, and Tanzania, was also included in the literature search to provide a wider perspective on the credit union experience. In addition, worldwide statistics provided by WOCCU on all member federations were analyzed for patterns of success and impact.

Some 30 international development and donor agencies have contributed to credit union development activities in the past 20 years. For this study, representatives of three of the other

TABLE 1

SUMMARY OF GRANT AND LOAN ASSISTANCE TO CREDIT UNION DEVELOPMENT, 1961-1984

| Country | No. of Projects | Amount (US $) |
|---|---|---|
| Worldwide Core Grant | 9 | 8,034,008 |
| Asian Confederation (ACCU) | 14 | 558,762 |
| Bangladesh | 4 | 65,891 |
| Hong Kong | 2 | 40,000 |
| India | 3 | 14,393 |
| Indonesia | 6 | 209,475* |
| Japan | 2 | 37,500 |
| Korea | 4 | 100,192 |
| Laos | 2 | 313,821* |
| Malaysia | 2 | 38,292 |
| Taiwan | 2 | 75,000 |
| Thailand | 5 | 327,543* |
| African Confederation (ACOSCA) | 18 | 5,303,964* |
| Cameroon | 5 | 4,112,300* |
| Ghana | 1 | 100,000 |
| Ivory Coast | 1 | 50,000 |
| Kenya | 5 | 717,600* |
| Lesotho | 10 | 1,178,512* |
| Liberia | 4 | 265,367* |
| Malawi | 1 | 759,777* |
| Mauritius | 2 | 35,246 |
| Nigeria | 4 | 168,400 |
| Rwanda | 1 | N.A. |
| Seychelles | 1 | 20,276 |
| Sierra Leone | 4 | 777,231* |
| Tanzania | 5 | 10,800 |
| Togo | 7 | 2,861,400* |
| Uganda | 3 | 1,019,100* |
| Upper Volta | 3 | 1,980,000* |
| Zaire | 2 | 1,450,000* |
| Zambia | 3 | 126,364 |
| Caribbean Confederation (CCCU) | 5 | 2,626,203 |
| Antigua | 2 | 82,937 |
| Bahamas | 1 | 3,000 |
| Barbados | 1 | 3,600 |
| Belize | 2 | 2,003,000 |
| Dominica | 5 | 676,407* |
| Grenada | 4 | 110,086 |
| Guyana | 3 | 12,933 |
| Jamaica | 1 | 600,000 |

TABLE 1 (Continued)

| Country | No. of Projects | Amount (US $) |
|---|---|---|
| Nevis | 1 | 72,419 |
| St. Lucia | 2 | 44,398 |
| St. Vincent | 4 | 102,573 |
| Surinam | 2 | 22,500 |
| Trinidad and Tobago | 1 | 4,725 |
| Latin American Confed. (COLAC) | 23 | 49,725,083* |
| Bolivia | 3 | 163,930* |
| Brazil | 3 | 81,010 |
| Colombia | 3 | 73,175 |
| Costa Rica | 6 | 2,986,227* |
| Dominican Republic | 6 | 654,250* |
| Ecuador | 10 | 3,970,959* |
| El Salvador | 6 | 5,645,290* |
| Guatemala | 5 | 8,288,742* |
| Honduras | 11 | 8,785,636* |
| Nicaragua | 5 | 562,648* |
| Panama | 2 | 586,744* |
| Paraguay | 5 | 2,167,113* |
| Peru | 4 | 29,894 |
| Uruguay | 3 | 253,695 |
| Venezuela | 1 | 31,700 |
| TOTALS | 265 | 121,113,091 |

* Major technical assistance programs. Note that some of the projects include earmarked loan funds and guaranty programs that were not actually assistance to the federations.

Source: Data compiled by the WCCU, Development Associates, Inc., and the author.

major international development agencies -- Cooperative Development Foundation of Canada (CDF), SDID, and the World Bank -- were interviewed. Data from these interviews are included in the report. Finally, a preliminary version of this report was reviewed by international cooperative representatives during a meeting of the Cooperative Advisory Group that was held in June 1984 in Washington, D.C. The comments of that group have been incorporated into this final report.

## THE SIGNIFICANCE AND IMPACT OF CREDIT UNIONS IN THE DEVELOPING WORLD

A successful credit union program many be expected to produce two types of benefits. At the national level, credit unions should mobilize domestic savings, stimulate financial activity through lending, and contribute to general financial deepening.[4] At the individual-member level, a successful program improves the financial well-being, independence, and productivity of its members. Additional benefits accrue through the development of leadership capabilities, citizenship skills, and participatory democracy.

### Macroeconomic and Social Significance

Credit unions have become permanent institutions in the developing world. The approximately 17,000 affiliated credit unions in developing countries comprise 6 million members, have mobilized local savings of nearly $1.5 billion and loans outstanding of $1.4 billion, and lend annually an estimated $1.7 billion to their members.[5] For a program that has received $121 million in external assistance during the past 25 years, this represents a significant accomplishment.[6] The significance and impact of credit unions at the national level can be measured in terms of membership penetration, savings mobilization, loan volume, institution building, and financial deepening.

## Penetration Rates

Potential credit union membership has traditionally been estimated on the basis of economically active heads of households, who constitute an estimated 16-18 percent of a population. The highest level of penetration reached in the United States and Canada, for example, is 16 percent in Saskatchewan. Only in the Caribbean -- where 37 percent of the population of Dominica, 11 percent of the population of Jamaica, and 9 percent of the population of Trinidad and Tobago belong to credit unions -- have penetration rates approached these levels. In Latin America, credit union membership averages less than 0.85 percent of the population; in Africa and Asia, membership is less than 0.6 percent and 0.2 percent respectively (see Table 2). Assuming an average family size of four to five persons, as many as 25-30 million people in the developing world have had some experience with credit unions as a financial institution.

Although these penetration rates may appear small, credit union movements in the developing world are relatively new and the amount of resources devoted to credit union promotion on a per capita basis in most countries has been small. Membership has increased at a steady rate of approximately 10 percent per year since 1978. This rate is substantially higher than the average population growth rate; this means that penetration rates are generally improving.[7]

## Local Savings Mobilization

Credit unions are unique in the developing world as mobilizers of domestic savings from relatively low-income groups. On a macro level, these results appear modest. Savings in credit unions as a percentage of total domestic savings range from 0.03 percent in Asia to 4.42 percent in the Caribbean (see Table 3). The low average in Asia results primarily from the small

TABLE 2

BASIC CREDIT UNION STATISTICS, AS OF DECEMBER, 1982

| REGION AND COUNTRY | NUMBER OF CU'S | NUMBER OF MEMBERS | MEMBER SAVINGS (US $) | LOANS OUTSTANDING (US $) | POPULATION | PENETRATION RATES DIRECT (%) | PENETRATION RATES FAMILIES (%) |
|---|---|---|---|---|---|---|---|
| ASIA | | | | | | | |
| BANGLADESH | 11 | 13,635 | 313,918 | 294,574 | 92,620,000 | 0.014 | 0.058 |
| HONG KONG | 52 | 16,592 | 3,007,281 | 2,579,142 | - | - | - |
| INDONESIA | 992 | 104,161 | 4,208,508 | 4,554,178 | 153,030,000 | 0.068 | 0.272 |
| JAPAN | 82 | 8,844 | 1,552,960 | 1,113,348 | 118,450,000 | 0.007 | 0.029 |
| KOREA | 1,138 | 833,173 | 580,572,000 | 514,538,667 | 39,330,000 | 2.118 | 8.473 |
| MALAYSIA | 50 | 2,880 | 208,500 | 141,500 | 14,420,000 | 0.019 | 0.079 |
| PHILIPPINES | 102 | 85,000 | 9,340,000 | 10,650,000 | 50,740,000 | 0.167 | 0.670 |
| TAIWAN | 291 | 45,597 | 20,728,839 | 21,382,279 | - | - | - |
| THAILAND | 234 | 19,848 | 1,329,163 | 1,350,783 | 48,450,000 | 0.040 | 0.162 |
| SUBTOTAL | 2,932 | 1,129,531 | 621,257,169 | 558,804,487 | 517,040,000 | - | - |
| SUBTOTAL* | 2,932 | 1,129,531 | 621,257,169 | 556,604,487 | 517,040,000 | 0.208 | 0.825 |
| AFRICA | | | | | | | |
| BENIN | 16 | 787 | 17,775 | 2,315 | 3,620,000 | 0.021 | 0.084 |
| CAMEROON | 213 | 47,183 | 9,928,360 | 6,697,248 | 8,500,000 | 0.555 | 2.220 |
| ETHIOPIA | 171 | 22,371 | 2,613,631 | 3,568,708 | 32,780,000 | 0.068 | 0.272 |
| GHANA | 265 | 52,130 | 22,148,550 | 14,315,771 | 12,000,000 | 0.432 | 1.729 |
| IVORY COAST | 86 | 7,544 | 107,514 | 351,432 | 8,300,000 | 0.090 | 0.363 |
| KENYA | 728 | 300,000 | 38,000,000 | 36,000,000 | 17,150,000 | 1.748 | 6.997 |
| LESOTHO | 59 | 25,100 | 1,230,192 | 915,865 | 1,370,000 | 1.832 | 7.328 |
| LIBERIA | 45 | 11,658 | 3,609,800 | 2,989,400 | 2,040,000 | 0.571 | 2.285 |
| MALAWI | 32 | 10,002 | 421,808 | 434,473 | 8,280,000 | 0.159 | 0.637 |
| MAURITIUS | 55 | 11,330 | 453,650 | 390,900 | 940,000 | 1.205 | 4.821 |
| NIGERIA | 7,732 | 717,268 | 48,732,000 | 28,492,304 | 82,390,000 | 0.870 | 3.482 |
| SENEGAL | 20 | 1,917 | 22,348 | 7,173 | 5,810,000 | 0.032 | 0.131 |
| SEYCHELLES | 1 | 1,327 | 191,334 | 183,034 | 65,000 | 2.041 | 8.166 |
| SIERRA LEONE | 212 | 10,892 | 979,923 | 1,548,717 | 3,570,000 | 0.305 | 1.220 |
| SWAZILAND | 25 | 1,222 | 40,828 | 14,268 | 590,000 | 0.207 | 0.828 |
| TANZANIA | 375 | 87,587 | 8,716,754 | 5,057,560 | 18,510,000 | 0.365 | 1.460 |
| TOGO | 97 | 4,974 | 488,820 | 301,102 | 2,710,000 | 0.183 | 0.734 |
| UGANDA | 353 | 158,850 | 198,765 | 103,675 | 13,620,000 | 1.166 | 4.665 |
| UPPER VOLTA | 33 | 1,200 | 102,777 | 48,342 | 6,250,000 | 0.019 | 0.076 |
| ZAIRE | 70 | 44,417 | 3,329,244 | 512,017 | 28,380,000 | 0.168 | 0.673 |
| ZAMBIA | 132 | 25,120 | 4,925,000 | 702,583 | 5,960,000 | 0.421 | 1.685 |
| SUBTOTAL | 10,700 | 1,522,839 | 144,247,672 | 100,634,903 | 258,895,000 | - | - |
| SUBTOTAL* | 10,700 | 1,522,839 | 144,247,672 | 100,634,903 | 258,895,000 | 0.588 | 2.353 |
| CARIBBEAN | | | | | | | |
| ANTIGUA | 7 | 726 | 93,840 | 132,468 | 80,000 | 0.907 | 3.630 |
| BARBADOS | 23 | 7,629 | 2,958,881 | 2,828,679 | 270,000 | 2.825 | 11.302 |
| BELIZE | 19 | 10,082 | 3,098,073 | 3,081,529 | 170,000 | 5.930 | 23.722 |
| CAYMAN ISLANDS | 1 | 816 | 1,158,152 | 1,252,549 | - | - | - |
| DOMINICA | 22 | 31,160 | 4,993,594 | 5,819,007 | 83,000 | 37.542 | - |
| GRENADA | 18 | 5,356 | 1,859,832 | 1,730,079 | 108,000 | 4.959 | 19.837 |
| GUYANA | 81 | 29,124 | 7,339,870 | 8,280,387 | 900,000 | 3.238 | 12.944 |
| JAMAICA | 96 | 252,109 | 120,482,715 | 119,652,251 | 2,220,000 | 11.356 | 45.425 |
| MONTSERRAT | 1 | 90 | 3,245 | 2,638 | 11,000 | 0.818 | 3.272 |
| NEVIS | 1 | 810 | 135,320 | 106,370 | 11,500 | 7.043 | 28.173 |
| ST. LUCIA | 12 | 6,148 | 1,254,635 | 1,127,198 | 120,000 | 5.123 | 20.483 |
| ST. VINCENT | 7 | 3,385 | 233,058 | 245,513 | - | - | - |
| SURINAM | 39 | 6,000 | 2,334,839 | 2,239,582 | 371,000 | 1.617 | 6.469 |
| TRINIDAD AND TOBAGO | 120 | 110,600 | 103,138,452 | 101,292,440 | 1,200,000 | 9.218 | 38.868 |
| SUBTOTAL | 427 | 464,015 | 248,888,084 | 245,588,666 | 5,544,500 | - | - |
| SUBTOTAL* | 427 | 464,015 | 248,888,084 | 245,588,666 | 5,544,500 | 8.293 | 33.171 |
| LATIN AMERICA | | | | | | | |
| ARGENTINA | 112 | 315,000 | - | - | 28,430,000 | 1.107 | 4.431 |
| BOLIVIA | 196 | 272,284 | 38,402,259 | 38,967,040 | 5,920,000 | 4.599 | 18.397 |
| BRAZIL | 265 | 251,155 | 16,000,000 | 18,500,000 | 126,810,000 | 0.198 | 0.792 |
| CHILE | 82 | 48,303 | 10,188,100 | 10,411,434 | 11,480,000 | 0.420 | 1.681 |
| COLOMBIA | 312 | 204,360 | 58,710,682 | 58,422,888 | 27,090,000 | 0.754 | 3.017 |
| COSTA RICA | 23 | 27,500 | 4,325,413 | 8,558,397 | 2,320,000 | 1.185 | 4.741 |
| DOMINICAN REPUBLIC | 111 | 80,300 | 20,400,000 | 20,486,269 | 5,740,000 | 1.398 | 5.585 |
| ECUADOR | 398 | 315,120 | 118,442,029 | 119,311,160 | 8,640,000 | 3.647 | 14.588 |
| EL SALVADOR | 43 | 15,000 | 1,800,013 | 7,488,564 | 4,940,000 | 0.303 | 1.214 |
| GUATEMALA | 90 | 83,050 | 15,570,000 | 19,860,000 | 7,700,000 | 1.078 | 4.314 |
| HONDURAS | 97 | 36,720 | 19,394,484 | 21,487,043 | 3,960,000 | 0.927 | 3.709 |
| MEXICO | 178 | 128,158 | 62,332,214 | 65,391,132 | 73,920,000 | 0.173 | 0.693 |
| NETHERLANDS ANTILLES | 38 | 15,000 | 8,400,000 | 10,200,000 | - | - | - |
| NICARAGUA | 37 | 13,000 | 1,917,050 | 2,103,993 | 2,920,000 | 0.445 | 1.780 |
| PANAMA | 98 | 37,578 | 23,059,708 | 30,416,539 | 2,040,000 | 1.842 | 7.368 |
| PARAGUAY | 50 | 22,851 | 10,989,912 | 13,282,571 | 3,370,000 | 0.872 | 2.688 |
| PERU | 412 | 800,000 | 58,992,000 | 54,931,189 | 18,790,000 | 4.257 | 17.030 |
| URUGUAY | 52 | 32,870 | 1,735,000 | 1,600,000 | 2,950,000 | 1.114 | 4.456 |
| VENEZUELA | 95 | 44,454 | 8,935,781 | 8,268,593 | 14,710,000 | 0.302 | 1.208 |
| SUBTOTAL | 2,687 | 2,742,503 | 479,195,303 | 504,295,792 | 351,740,000 | - | - |
| SUBTOTAL* | 2,575 | 2,427,503 | 479,195,303 | 504,295,792 | 351,740,000 | 0.775 | 3.102 |
| TOTALS | 16,748 | 5,858,388 | 1,493,588,228 | 1,407,123,828 | 1,133,219,500 | - | - |
| TOTALS* | 16,634 | 5,543,388 | 1,493,588,228 | 1,407,123,828 | 1,133,219,500 | 0.508 | 2.040 |

Sources: World Council of Credit Unions. The World Council of Credit Unions Statistical Report and Directory, 1982/1983. Also, the International Monetary Fund, International Financial Statistics. January 1984.

* = Subtotals and totals for those countries for which all data was available.

TABLE 3

BASIC CREDIT UNION STATISTICS, DECEMBER 1982

| REGION AND COUNTRY (1) | GROSS DOMESTIC PRODUCT (1982) (2) | GDP PER CAPITA (3) | SHARES AS PERCENT OF TOTAL SAVINGS (4) | 1982 SHARES PER MEMBER (US $) (5) | SHARES PER MEMBER RELATIVE TO SAVINGS PER CAPITA (6) | 1975-1982 GROWTH IN SAVINGS ( % ) (7) | ESTIMATED ANNUAL LOAN VOLUME (US$) (8) |
|---|---|---|---|---|---|---|---|
| ASIA | | | | | | | |
| BANGLADESH | 8,875,965,772 | 95 | 0.02 | 23 | 121.05 | | 353,482 |
| HONG KONG | | | | 181 | | 482.76 | 3,094,970 |
| INDONESIA | 88,112,835,379 | 562 | 0.04 | 40 | 51.28 | 1912.50 | 5,465,011 |
| JAPAN | 1,123,144,880,851 | 9,482 | | 175 | 1.20 | 565.93 | 1,336,015 |
| KOREA | 88,574,519,230 | 1,692 | 3.18 | 696 | 150.32 | 1785.47 | 817,446,400 |
| MALAYSIA | 28,093,137,466 | 1,809 | | 71 | 4.49 | | 169,800 |
| PHILIPPINES | 37,121,360,811 | 731 | 0.10 | 109 | 81.93 | | 12,780,000 |
| TAIWAN | | | | 464 | | 809.18 | 25,658,734 |
| THAILAND | 37,320,434,782 | 770 | 0.01 | 67 | 23.92 | 353.40 | 1,620,939 |
| SUBTOTAL | 1,385,242,734,291 | | | | | | 687,925,357 |
| SUBTOTAL* | 190,007,589,391 | | | | | | 624,532,350 |
| AFRICA | | | | | | | |
| BENIN | 962,886,587 | 255 | 0.01 | 23 | 41.07 | | 2,776 |
| CAMEROON | 7,628,875,110 | 897 | 0.74 | 210 | 132.91 | 497.97 | 8,038,695 |
| ETHIOPIA | 4,405,314,009 | 134 | 0.31 | 118 | 446.15 | | 4,280,048 |
| GHANA | 27,871,758,000 | 2,311 | 0.79 | 424 | 183.54 | 539.40 | 17,178,925 |
| IVORY COAST | 9,875,124,378 | 1,165 | 0.01 | .14 | 8.91 | | 421,718 |
| KENYA | 5,380,000,000 | 312 | 1.96 | 128 | 111.50 | 359.83 | 43,200,000 |
| LESOTHO | 315,169,640 | 230 | 0.78 | 49 | 42.50 | 296.80 | 1,099,082 |
| LIBERIA | 841,400,000 | 412 | 3.29 | 309 | 583.01 | 900.17 | 3,587,280 |
| MALAWI | 1,284,958,979 | 204 | 0.17 | 42 | 107.69 | 1131.63 | 521,367 |
| MAURITIUS | 988,353,273 | 1,040 | 0.12 | 40 | 9.83 | 1345.06 | 489,080 |
| NIGERIA | 68,988,928,000 | 812 | 0.27 | 87 | 30.18 | 712.38 | 31,790,784 |
| SENEGAL | 2,398,747,390 | 412 | | 11 | 12.35 | | 8,607 |
| SEYCHELLES | 152,381,378 | 2,344 | 0.81 | 144 | 29.87 | 812.89 | 219,640 |
| SIERRA LEONE | 1,100,437,520 | 308 | 0.41 | 89 | 134.84 | 209.58 | 1,858,460 |
| SWAZILAND | 515,064,200 | 872 | 0.03 | 33 | 14.79 | 317.90 | 17,119 |
| TANZANIA | 4,533,396,048 | 244 | 0.39 | 99 | 108.45 | 642.99 | 6,069,072 |
| TOGO | 758,959,107 | 280 | 0.25 | 97 | 134.72 | 960.32 | 361,322 |
| UGANDA | 8,668,843,839 | 638 | 0.08 | 1 | 5.88 | 108.38 | 124,410 |
| UPPER VOLTA | 1,257,711,442 | 201 | 0.07 | 85 | 386.36 | 1323.54 | 58,010 |
| ZAIRE | 5,448,571,528 | 208 | 0.41 | 74 | 236.70 | | 614,420 |
| ZAMBIA | 3,484,507,600 | 581 | 0.33 | 196 | 78.08 | 251.25 | 843,099 |
| SUBTOTAL | 154,594,968,008 | | | | | | 120,781,877 |
| SUBTOTAL* | 131,706,524,134 | | | | | | 115,434,305 |
| CARIBBEAN | | | | | | | |
| ANTIGUA | | | | 128 | | 289.94 | 158,981 |
| BARBADOS | 991,895,788 | 3,373 | 0.82 | 387 | 26.94 | 469.10 | 3,392,014 |
| BELIZE | 124,650,000 | 733 | 5.93 | 307 | 100.00 | 218.89 | 3,697,834 |
| CAYMAN ISLANDS | | 1 | | 1,416 | | | 1,503,058 |
| DOMINICA | 58,814,814 | 884 | 15.03 | 160 | 40.00 | 432.91 | 6,742,808 |
| GRENADA | 107,582,592 | 996 | 4.20 | 309 | 84.65 | 445.16 | 2,078,094 |
| GUYANA | 482,000,000 | 535 | 1.30 | 252 | 58.74 | 357.30 | 7,538,464 |
| JAMAICA | 3,184,180,981 | 1,434 | 8.29 | 477 | 72.93 | 481.59 | 143,582,701 |
| MONTSERRAT | | | | 36 | | 108.08 | 3,163 |
| NEVIS | | | | 167 | | 281.91 | 127,644 |
| ST. LUCIA | 134,111,111 | 1,117 | 1.92 | 204 | 35.47 | | 1,332,835 |
| ST. VINCENT | | 1 | | 69 | | 271.31 | 294,815 |
| SURINAM | 1,044,705,882 | 2,815 | 0.68 | 389 | 42.32 | 332.77 | 2,687,474 |
| TRINIDAD/TOBAGO | 8,853,750,000 | 5,711 | 3.81 | 932 | 38.19 | 800.44 | 121,550,928 |
| SUBTOTAL | 12,979,701,168 | [illegible] | [illegible] | | | | 294,708,393 |
| SUBTOTAL* | 12,846,580,057 | | | | | | 291,288,317 |
| LATIN AMERICA | | | | | | | |
| ARGENTINA | 75,193,158,732 | 2,844 | | | | | |
| BOLIVIA | 2,040,877,551 | 344 | 13.57 | 144 | 293.87 | 425.17 | 44,348,448 |
| BRAZIL | 209,980,876,369 | 1,655 | 0.04 | 63 | 20.25 | 211.38 | 22,200,000 |
| CHILE | 16,732,842,938 | 1,456 | 0.21 | 210 | 50.72 | | 12,483,720 |
| COLOMBIA | 39,943,047,318 | 1,474 | 0.51 | 277 | 81.23 | 750.72 | 87,707,465 |
| COSTA RICA | 1,584,261,568 | 682 | | 157 | | 213.58 | 7,871,276 |
| DOMINICAN REP. | 7,227,000,000 | 1,259 | 1.24 | 254 | 88.81 | 445.76 | 24,595,522 |
| ECUADOR | 12,334,238,310 | 1,427 | 6.75 | 375 | 184.72 | 713.74 | 143,893,392 |
| EL SALVADOR | 3,548,400,000 | 718 | 0.19 | 120 | 62.82 | 179.68 | 8,385,876 |
| GUATEMALA | 8,663,000,000 | 1,125 | 0.85 | 187 | 78.90 | 408.39 | 23,832,000 |
| HONDURAS | 2,801,500,000 | 707 | 3.20 | 544 | 346.49 | 379.52 | 25,784,451 |
| MEXICO | 95,934,908,789 | 1,297 | 0.20 | 486 | 116.28 | 898.30 | 78,489,358 |
| N. ANTILLES | | 1 | | 560 | | 411.11 | 12,240,000 |
| NICARAGUA | 1,334,228,855 | 468 | 0.29 | 147 | 65.82 | 197.38 | 2,524,791 |
| PANAMA | 3,839,800,000 | 1,882 | 1.28 | 613 | 68.42 | 489.37 | 36,489,846 |
| PARAGUAY | 5,852,380,952 | 1,736 | 1.21 | 486 | 180.37 | 1170.82 | 15,339,085 |
| PERU | 13,909,390,198 | 740 | 2.38 | 73 | 55.30 | 171.14 | 88,317,402 |
| URUGUAY | 3,804,533,333 | 1,289 | 0.07 | 52 | 8.16 | | 1,320,000 |
| VENEZUELA | 88,486,642,981 | 4,723 | 0.03 | 201 | 8.54 | | 9,922,311 |
| SUBTOTAL | 574,193,586,494 | | | | | | 805,154,343 |
| SUBTOTAL* | 407,390,348,342 | | | | | | 560,707,836 |
| TOTALS | 2,127,010,389,959 | | | | | | 1,688,548,570 |
| TOTALS* | 741,349,752,524 | | | | | | 1,591,340,808 |

Source: World Council of Credit Unions. The World Council of Credit Unions Statistical Report and Directory, 1982/1983. Also, the International Monetary Fund, International Financial Statistics. January 1984.

* = Subtotals and totals for those countries for which all data was available.

movements in Japan and Malaysia. Although the aggregate amounts may appear small, and cannot yet be expected to have a significant impact on national economic activity, they represent:

- A significant mobilization of resources from a relatively low income base of the society;
- A monetization of savings by a sector of the population that often does not monetize savings;
- A formal institutionalization of savings because surplus funds enter the major financial markets of the countries; and
- A net addition to the mobilized and useful capital base of the countries.

Most excess liquidity (surplus of savings over loans outstanding) is deposited by credit unions in the formal banking systems of the countries, thus providing them with a further capitalization base.

Between 1975 and 1982, savings in credit unions in those countries for which data are available for all years increased 448 percent, from $324 million to nearly $1.5 billion, despite the general devaluation of developing country currencies against the U.S. dollar. As of 1982, the annual increase in credit union member savings was approximately 25 percent a year. Even though credit union members represent a sector of the economy with limited financial resources, savings-per-member ratios in credit unions are generally higher than overall savings per capita, as represented in demand, time, and savings deposits (see Table 3).

Loans Granted

With loans outstanding of $1.4 billion at the end of 1982, the credit unions of Africa, Asia, the Caribbean, and Latin America lend annually $1.7 billion. (This figure assumes an

annual turnover rate of 1.2 on the average loan portfolio.) In some countries, the absolute dollar amounts of loans disbursed each year are significant in development terms: for example, Bolivia ($44.4 million), Ecuador ($143.6 million), Guatemala ($23.8 million), Honduras ($25.7 million), Jamaica ($143.9 million), Kenya ($43.2 million), and Trinidad and Tobago ($121.6 million). A complete listing of estimated annual loan amounts appears in Table 3.

These amounts are significant because they represent funds that were, for the most part, generated internally and did not place a claim on government resources or increase the international debt burden of the country. In many cases, they represent lending levels in excess of the amounts of annual foreign assistance received by the countries. Because most credit union loans have been created for education, health, housing, production, and self-improvement, they represent a net contribution to the country's development objectives.

Institution Building

Perhaps the most significant contribution of credit unions to macro-economic development in many countries has been to create a financial infrastructure serving areas and populations not served by traditional institutions. With its low-overhead structure and volunteer directorships, the credit union movement has established financial institutions and services not only in cities, but also in areas with relatively low population density. These areas cannot support private commercial banks and financial institutions or government-sponsored institutions. Although exact figures are unavailable, many credit unions are located in small villages and are often the only formal financial institution in the community.

Credit unions have been a relatively stable institution in the developing world. The national movements of Latin America are 20-25 years old, with most of the surviving credit unions

established during the initial bilateral foreign aid programs. In Africa, the first credit unions were formed in the late 1950s. Caribbean credit unions date from the 1940s. Although credit unions may have problems with loan delinquencies, collections, and growth, they have generally survived. Some early credit unions were liquidated, but the preferred practice is to merge weak institutions with other, stronger ones to preserve membership and assets. The credit unions generally receive few direct external subsidies.

The presence of credit unions as relatively stable, local financial institutions has provided a channel for development assistance funds that would not otherwise be available. In Belize and Jamaica, for example, credit unions have served as institutions for channeling AID-financed low-income housing improvement and construction loans. The World Bank channeled $8 million in earthquake rehabilitation funds through the Guatemalan credit union system. USAID/Bolivia selected credit unions as intermediate financial institutions for its agricultural sector loans because the credit unions represented a nationwide network of financially viable local institutions.

The national federations vary considerably in their financial and economic viability. In Asia, the Caribbean, and Latin America, the federations are generally self-sufficient, with little direct budget support from external donor agencies. Recently, however, economic stagnation and rampant inflation have severely affected these federations. In Africa, the federations are so new that they depend heavily on external resources.

Financial Deepeening

The credit union movement has contributed to the financial deepening of the developing countries through the development of additional financial institutions, services, sources, and opportunities. In countries such as Cameroon, Honduras, and Paraguay, the central credit union operations of the national

federation have developed into de facto cooperative banks, lending funds to credit unions and other forms of cooperatives. The credit union movement has provided savings instruments and made loans that are, on average, too small for public and private institutions to provide. In addition, it has institutionalized savings and credit for sectors of the population that would normally not participate in the country's financial economy.

## Impact on Members

The impact of credit unions on their members is perhaps more important, but also more difficult to measure. Unfortunately, little direct information is available on this impact, and available indirect measures are not entirely satisfactory.

### Member Savings

Successful credit union programs have built a capital base of savings for their members. The average savings of credit union members often exceed average per capita savings for the country as a whole and represent as high as one-third to three-fourths of one year's gross domestic product (GDP) per capita (see Table 3). Average savings, expressed in U.S. dollars, increased from $123 per member in 1975 to $277 per member in 1982 in countries for which data are available for all seven years -- in spite of the general devaluation of developing country currencies against the U.S. dollar. These savings provide the foundation for the member's long-term financial stability and independence.

### Member Income

Only scattered data exist in the documentation available in the United States on income generated by dividends or interest on savings. In general, however, interest rates paid on savings have been far below national rates of inflation. As a result,

income from dividends and interest has seldom been sufficient to maintain the value of the members' savings deposits and provide a real rate of return. This situation is not unique to credit unions: negative real rates of return prevail in savings programs in developing countries.

Loans to Members

Credit unions in the developing world lend about $1.7 billion each year to their members. This is an average of $290 per member per year.

Concern is frequently expressed that credit union loans, particularly loans to urban members, are for consumption rather than production. This argument, however, is immaterial. People living near or at the margin of poverty do not borrow for needless or conspicuous consumption; they borrow to meet fundamental human needs. Analyses of credit union loans generally indicate that they are used for education, health care, tools, home improvements, and marketable production. Although some of these do not generate income, they do maintain and improve the member's economic condition and quality of life. Production is an important aspect of a member's economic and social life. It is not the only one, however, nor is it the only one worth addressing.

The impact of credit on the members cannot be assessed because adequate statistics for measuring it do not exist. Studies of rural credit indicate that credit use increases productivity while raising costs. Increases in income have generally been unrelated to increases in production.[8] It is also difficult to assess the impact of credit on any changes. Measured change in socioeconomic status may be equally the cause or the result of a use of credit. Any increase in literacy or the quality of health or living conditions may result from the

availability of credit or from an improvement in economic situation, which also prompted the availability and use of credit.

## Human Resource Development

Credit unions depend on the active participation of a large body of volunteers. Volunteer boards of directors (5-11 persons per credit union), education committees, credit committees, auditing committees, and supervisory committees involve many people in routine operations. Because these volunteers are members of the credit union, and seldom have had prior experience directing a financial institution, the credit union movements provide them with education and training. Although no summary statistics exist on the total numbers of persons trained, the reports of individual training activities and annual summaries indicate that hundreds of thousands of persons have received some form of educational training through the credit union system.

More important, the volunteer structure has exposed countless individuals to the responsibility of operating and managing a modern institution. If one considers that an average credit union has a board and committees involving approximately 15 persons, and that these individuals change once every three years, as many as 1 million people may have have served in an official capacity in a credit union in the developing world.

## Women in Development

Credit unions have served as significant financial institutions for women in the developing world. In Lesotho, nearly 75 percent of the members are women, primarily as a result of men migrating to South Africa to work. In addition, most of the policy-making positions on the board of directors at both the credit union and the federation levels are held by women. Women also predominate as the credit union bookkeepers.[9] Fifty-six

percent of the credit union members in Jamaica and 25 percent in Togo are estimated to be women.[10] In Chile, women are prevalent in parish credit unions. In many other countries, credit unions serve as important sources of operating capital for women selling in the open-air street markets. A recent study concluded that credit unions are the only formal financial institutions to which women regularly have access.[11]

### Summary of Impact on Members

Perhaps the best indicator that credit unions have provided genuine, tangible benefits is that membership has increased (an average of 95 percent over a six-year period in countries for which 1976 and 1982 data are available), savings have grown (448 percent over the same period in those countries), and members have used credit unions as a source of loans.

### Resources Employed

More than 30 development and donor agencies have provided funding or technical assistance to credit unions in the developing world, committing $121 million in grant and loan funds since 1961. This estimate is conservative; early data on non-AID donors are not available, and the figures do not include estimates for the work value of Peace Corps volunteers, in-kind contributions of VOCA (VDC) projects, or contributions of host governments in human and financial resources. The donor agencies and their approximate contributions to international credit union development are summarized in Table 4.

Of the total $121 million provided by these donor agencies between 1961 and 1983, $58 million were grants, while $63 million were loans. All of the assistance to Africa and most to the Caribbean has been grants (one $2 million housing guaranty loan was channeled through the credit union system in Belize), whereas 73 percent of the assistance to Latin America has been loans.

TABLE 4

GRANT AND LOAN ASSISTANCE TO CREDIT UNIONS
BY DONOR, 1961-1984

| Donor | No. of Projects | Amount (US $) |
|---|---|---|
| AFCUL Foundation | 1 | 4,000 |
| Bread for the World | 3 | 142,500 |
| CARE | 1 | 150,000 |
| CDF/CIDA | 61 | 4,338,615 |
| CEBEMO | 1 | 15,140 |
| CICM | 1 | 76,035 |
| CUNA Foundation | 10 | 13,850 |
| CUNA Mutual | 17 | 1,091,339 |
| EZE | 2 | 174,200 |
| FAO | 1 | 10,000 |
| FECOLAC | 1 | 6,800 |
| GTZ | 5 | 3,108,000 |
| IAF | 4 | 1,592,550 |
| IBRD | 1 | 8,000,000 |
| ICCO | 3 | 203,151 |
| Irish CUL | 2 | 12,800 |
| KAF | 7 | 761,935 |
| Lesotho Government | 3 | 89,100 |
| MISEREOR | 6 | 463,000 |
| ONTARIO CUL | 1 | 1,000 |
| PACT | 2 | 173,170 |
| SDID | 11 | 11,544,500 |
| Swiss Lenten Fund | 2 | 54,500 |
| Texax Teachers CU | 2 | 8,000 |
| USAID | 81 | 48,114,734 |
| VDC (VOCA) | 11 | 145,603 |
| Worldwide CU Foundation | 10 | 79,918 |
| IDB | 4 | 33,190,000 |
| RABOBANK | 3 | 1,225,186 |
| Foster Parents Plan | 1 | 152,000 |
| CABEI | 1 | 1,400,000 |
| OPIC | 2 | 3,500,000 |
| U.S. Central | 1 | 1,250,000 |
| Other | 1 | 21,465 |
| TOTALS | 265 | $121,113,091 |

Source: Listing prepared by WCCU, Development Associates, Inc., and the author.

Three quarters of the total amount has supported the Latin American credit union movement. This is due to the longer period of time that donor agencies have been involved in Latin America and the fact that early data from non-U.S. sources are not available. Many early West European-funded efforts were directed toward Africa, but data are not available on those programs. Two other factors account for the low level of funding in Asia. First, several of the countries are not AID-designated countries and therefore not eligible for assistance. Second, in the aftermath of the Vietnam war, many Asian credit union movements would not accept official U.S. government funding.

TABLE 5

SUMMARY OF GRANTS AND LOANS TO DEVELOPING COUNTRY CREDIT UNION MOVEMENTS, 1961-1983

| Region | Number | Grants (US$) | Loans (US$) | Total (US$) |
|---|---|---|---|---|
| Asia | 46 | 1,780,869 | - | 1,780,869 |
| Africa | 80 | 20,936,337 | - | 20,936,337 |
| Caribbean | 34 | 4,364,781 | 2,000,000 | 6,364,781 |
| Latin America | 96 | 23,055,096 | 60,942,000 | 83,997,096 |
| TOTALS | 256 | 50,137,083 | 62,942,000 | 113,079,083 |

Note: This table does not include worldwide core grant funding of $8 million.

The bulk of loan funds has been for seed capital, whereas grant funds have gone primarily for technical assistance, training, education, and budget support (See Table 6).

TABLE 6

PURPOSE OF GRANT AND LOAN FUNDS TO CREDIT UNION MOVEMENTS

| Purpose of Funds | Grant (US$) | Loan (US$) | Total (US$) |
|---|---|---|---|
| Technical assistance | 22,835,500 | - | 22,835,500 |
| Participant training | 5,500 | - | 5,500 |
| Other education | 2,260,052 | - | 2,260,052 |
| Commodities | 28,200 | - | 28,200 |
| Construction | 37,045 | 1,000,000 | 1,037,045 |
| Working capital | 152,000 | - | 152,000 |
| Seed capital (for loans) | 6,318,470 | 61,942,000 | 68,260,470 |
| Budget support | 15,481,334 | - | 15,481,334 |
| Other | 11,052,990 | - | 11,052,990 |
| TOTALS | 58,171,091 | 62,942,000 | 121,113,091 |

A substantial share of the growth of credit unions in the developing world may be traced to the funding provided by the donor agencies. As can be seen in Table 7, there has been a substantial multiplier effect for funds invested in credit union development activities.

TABLE 7

MAJOR RATIOS

| | |
|---|---|
| Amount of assistance per credit union member | US$ 21 |
| Member-owned savings/external funds | 12:1 |
| Annual credit union loans/external funds | 15:1 |

## Alternative Approaches to Credit Union Development

Numerous alternatives to the credit union model of savings and credit exist in the developing world. Concerning credit, especially rural credit, alternatives include government-operated

agricultural development banks, credit activities associated with agricultural cooperatives, cooperative banks, commercial banks, and the informal credit market. Concerning savings, alternatives include private, pre-cooperative savings societies such as the "njangis" and country meetings of Cameroon, revolving credit societies, savings and loan associations ("mutualistas"), and private commercial banks. With the exception of savings and loan associations, which deal primarily with a middle income clientele, and a few isolated cases with development banks, the alternative forms have not attempted to integrate savings and credit or to fund credit from internally generated savings. Although scale and objectives differ, some comparisons may be made among the alternatives.

Commercial banks have traditionally not wanted to or succeeded in lending to the population that makes up credit union membership in the developing world. The expense of generating and servicing small loans makes them unprofitable. In addition, commercial banks tend not to lend to credit union members because these individuals lack adequate collateral to secure the loans.[12]

This situation applies equally to the savings mobilization potential of commercial banks: small savings balances are too costly to service. Many banks, in fact, place a service charge on small deposits to discourage them. The low-overhead structure of credit unions allows them to operate in areas and among populations that would not profitably support a bank operation.

A study on Bolivian cooperatives concluded that credit programs added onto traditional agricultural cooperative functions proved difficult to manage.[13] This may in part result from the difficulty of managing multipurpose businesses. But it may also stem from the fact that an agricultural cooperative typically does not have a corresponding savings activity. The credit funds are usually donated or lent by

outside sources, not generated from internal savings. Management is accountable not to the membership for the funds, but to external agencies or no one at all.

Formal agricultural credit programs carried out through development banks and parastatal organizations have traditionally encountered similar problems. In Bolivia, for example, the Banco Agricola Boliviano was insolvent, with excessive delinquency rates, low income due to unrealistically subsidized interest rates, and excessively high operating costs. It was overstaffed, with a costly, top-heavy bureaucracy; politicized leadership; and an inadequate and inefficient organizational and administrative structure. It represented a continuous drain on central government budgets and resources, yet lacked funds to maintain an institutional presence in rural areas. And it had disbursed the vast majority of its loans to larger farmers and landholders.[14]

The project evaluation of an agricultural development bank in Liberia revealed a totally decapitalized institution as a result of loan delinquencies, low collections rates, and inadequate government funding. A constant injection of external capital and operating subsidies was required to maintain it. The bank could not deal effectively with small farmers because of the high administrative costs of making individual loans to them.[15] In Peru, 85-95 percent of the Cooperative Bank's (BANCOOP) loans went to short-term commercial borrowers because they were "more reliable and accessible than farmers."[16] The Lesotho Agricultural Development Bank had a delinquency rate of over 50 percent, with few possibilities of recovering its loans, no institutional channels for distributing loans, and few projects.[17]

There are few examples of savings programs associated with specialized development banks, but the documented results have been positive. In Peru, new savings deposits increased 800 percent in a five-year period, and new branches attracted more than three times the expected savings volumes.[18] In Liberia,

savings mobilization was 200 percent greater than planned.[19] The experiences of the Swedish Savings Bank Association indicate that there is a strong internal demand for savings facilities and that substantial capital can be mobilized internally if the mechanisms are provided.[20] The international donor community has tended to believe that significant amounts of capital cannot be generated internally in developing countries, ignoring internal savings mobilization as a significant development tool. But the experiences of credit unions and these institutions indicate that savings mobilization could play a more significant role in the development process if adequate mechanisms for mobilizing those savings were available.

The informal money markets that exist in all countries meet a portion of the savings and borrowing needs of the local population. Moneylenders typically charge high rates of interest for short-term credit. This does not necessarily represent a usurious practice; instead, it reflects the costs and risks of lending to low-income individuals in an informal market. A comparison of credit unions with local moneylenders (storekeepers) in Paraguay indicated that the major benefits of credit unions were:[21]

- Lower interest rates on loans (averaging 50-75 percent lower);
- Flexibility in financing different crops;
- Ability to provide multi-year financing;
- Flexibility to use funds for land purchase;
- Members benefited from capitalization (savings);
- Members influenced lending policies; and
- Credit unions attracted outside funding and expanded lending activities.

Country meetings, njangis, and other informal savings and credit activities mobilize savings and extend credit, but generally on a small scale (although the net effect may be large). In Cameroon, for example, the country meetings would typically extend credit to only one person each month. Credit union members had significantly higher per capita savings rates than comparable non-credit-union groups.[22] In Lesotho, the savings-per-member ratios of credit union members was 3.6 times higher than savings rates for members of Co-op Lesotho.[23] In Cameroon, the savings societies typically paid higher returns on savings than credit unions so that, according to one author, credit union members tended to save in the njangis, where they could receive a higher return, and borrow from their credit unions, which had set interest rates considerably below going rates.[24]

In the developing world, credit unions offer a stable institutional framework that can, over time, mobilize significant amounts of savings and extend relatively large amounts of credit to individuals who would not normally be served by alternative institutions. As private institutions, credit unions have contributed to overall national economic development, without causing a drain on central government resources (in the form of either operating or interest rate subsidies) and with little or no negative impact on foreign exchange or external debt.

## MAJOR PROBLEMS FACING CREDIT UNIONS

Although the accomplishments of the worldwide credit union movement have been substantial, three major problems concern the sector: the institutional viability of credit unions in rapidly inflating economies, loan delinquency, and the sustainability of the movement's second- and third-level structures.

## Institutional Viability

The most serious threat to credit union stability in the developing world is the actual or potential high rate of inflation. Credit unions in Western Europe and North America evolved during periods of low inflation, in contrast to the high inflation rates in the developing world today. Inflation rates of 15-20 percent per year have been the norm in Africa since 1978. In Latin America, inflation has been even higher, with an average annual inflation rate of approximately 170 percent in recent years, and countries such as Argentina, Brazil, Peru, and Uruguay have had inflation rates as high as 500-3,000 percent per year.

Interest rate policies throughout the credit union movements of Africa, the Caribbean, and Latin America are largely inconsistent with current economic conditions. Credit unions have often accepted as doctrine the practice of charging low interest rates to borrowers, ignoring the short- and long-run implications of this policy. The 12 percent maximum interest rate on loans used by many credit union movements grew out of the early credit union experiences during a low inflation period in Western Europe. At the time, they represented an easy-to-calculate (1 percent of the unpaid balance per month) amount that provided a healthy spread on funds. Today, they represent a negative rate of return that decapitalizes the credit union and provides a strong disincentive to save. Low interest rates:

- Decapitalize members' savings. Because the credit union does not pay a real rate of interest on savings, the members' assets are depleted by inflation;
- Make it difficult for a credit union (or federation) to achieve self-sufficiency because earnings on assets are lowered and the covering of operating costs on the available portfolio becomes more difficult. Credit unions or federations turn to investments in fixed or other assets instead of lending to members to achieve an adequate level of income; and

- Force credit unions, federations, and regional confederations to resort to non-interest means to increase income or decrease expenses. Commissions and non-payment of interest on savings or capitalization shares substitute for interest earnings, thus distorting the economics and operations of the credit unions.

A long-term effect of the low interest-rate policies of credit unions will be a movement that is internally weak and dependent on external capital for capital accumulation and growth. Even at present, the generation of much of the internal savings in credit unions results from contract savings agreements and loan capitalization requirements rather than from voluntary savings.[25]

Loan Delinquency

In noting the difficulties that cooperatives in Bolivia had with managing credit activities, a recent study concluded that credit was too difficult a managerial task for most emerging cooperative institutions.[26] However, credit unions, which deal only with credit, are by far the most widespread form of cooperative organization in the developing world.

Credit unions are not immune to delinquency problems. Many studies and evaluations that this study reviewed reported high rates of delinquency -- as high as 40-50 percent in subsections of the credit union movements when refinancing is considered and the different methods of calculating delinquency standardized.[27] Delinquency rates at this level, however, are incompatible with the continued growth and relative stability that credit unions have experienced in the developing world and would lead to rapid decapitalization and liquidation. As this does not seem to be taking place, further study is recommended.

Delinquency problems have traditionally been much higher in rural credit unions than in urban ones. This has been attributed to:[28]

- Excessive leveraging as a result of external loan funds, frequently as high as 10-16 times paid-in capital;
- Past experience of government loan programs in the same area that did not collect principal or interest from the farmers;
- Too rapid growth in the early years of the credit union, resulting in demand for sophisticated management before it had had a chance to develop;
- Little consideration of the role of commercialization as a factor in recuperation;
- Large amounts of loans to officers of the credit union;
- Large amounts required for farm credit; and
- Greater risk of natural disasters, especially in sequential years.

Sustainability of the Infrastructure

The credit union movement is a vertically integrated system involving local credit unions, national federations, and regional confederations. Although this structure is, to a large extent, responsible for the overall success of the movement in developing countries, it is expensive establish and maintain. Most technical assistance and budget support funds to Third World credit union development have gone to develop and maintain national federations and regional confederations and support the services they provide to credit unions.

Many policies and programs of the higher-level organizations are designed to develop their self-sufficiency. In the absence of external assistance (grant or loan), the only unit in the credit union structure that generates savings and income is the local credit union. All programs designed to generate income for the higher-level organizations must draw funds from the local credit unions, in dues, fees, or capitalization. When the value

of services and income returned to the local credit unions exceeds, or has the probability to exceed, the value of the resources supplied by them, this situation is acceptable.

For the most part, however, the interest rate paid on capitalization funds has been far below the rate of inflation.[29] In Lesotho, for example, the federation voted to pay no interest on capitalization in order to use the funds to cover federation expenses.[30] The absence of interest received is not always calculated as a cost to the credit union or to the member; yet it can have significant implications for the viability and benefits provided by local-level credit unions.

National federations play an important role in the continued growth and stability of local credit unions, but they also represent a commitment of scarce resources. Bilateral and regional assistance programs should be aware of the problems involved with creating bureaucracies that cannot be supported internally by the established resource base when donor assistance terminates.

The regional confederations face a similar problem, although the organizations have a mixed history and it is difficult to summarize findings. The Latin American Confederation of Credit Unions (COLAC) and its affiliates have mounted the largest program of technical and financial services for its member federations, with international grant and seed-capital loan funds of at least $50 million since its initiation. Yet today COLAC (including its affiliates) is not self-sufficient, will have difficulty becoming so, and absorbs considerable annual resources from both its member federations and its international donors.

According to an evaluation, the African Confederation of Credit Unions (ACOSCA) is weak and was recently the subject of an intensive discussion among donor agencies concerning its future viability. ACOSCA had no capital base, existed almost entirely on

donor funding, and had little chance of becoming self-sufficient. The evaluation asked how far donor organizations should go to support an organization whose members cannot, or will not, pay the dues that they themselves have levied.[31] Until recently, the Asian Confederation of Credit Unions (ACCU) and the Caribbean Confederation of Credit Unions (CCCU) had not attempted to develop the financial and other services of COLAC and ACOSCA, and did not have the heavy overhead structure associated with them. CCCU is largely self-sufficient as a representational body, using donor-supplied funds to conduct a limited number of training courses. ACCU is heavily subsidized by WOCCU and national credit union foundations.

Although any attempt to draw conclusions from the experiences of the regional confederations will inevitably be superficial, two factors stand out:

- The resource base to support the upper-level organizations is more extensive in Australia, Canada, Ireland, New Zealand, and the United States, and the levels of dues necessary to support the national organizations are considerably lower than for the developing world confederations. On a per capita basis, adjusted for national income levels, the credit unions and federations of the developing countries pay rates of dues that are up to 100 times those of CUNA and the Canadian Cooperative Credit Society (CCCS). This situation represents a heavy drain on local resources.

- It is difficult to conduct an international interlending program in the developing world. Problems with blocked currencies, devaluation, maintenance of value, and foreign exchange have been more severe than originally estimated. ACOSCA has had to abandon its plans to serve as a central financing organization, and COLAC has recently been forced to reassess its ability to generate sufficient income from this activity.

This section has been concerned only with the ability of the movements of the developing world to support the structures that the credit union development model has developed. It has not attempted to weigh the benefits of the regional confederations

against the cost of maintaining them, and should not be interpreted as arguing that the federations or confederations are too costly or not necessary. This structure, perhaps more than anything else, is responsible for the success that the credit union movement has achieved.

## LESSONS LEARNED: FACTORS INFLUENCING SUCCESS

By reviewing the past 20 years of the development experience of credit unions, this study was to develop a better understanding of the patterns of success and the factors influencing the relative success of credit union projects. The general model hypothesized that relative success would be dependent on seven major groups of variables:

- Donor interests and requirements;
- Project design;
- Nature and timing of resources;
- Role of the government;
- Project socioeconomic environment;
- Relationships of the credit union movement to other institutions; and
- Internal management, participation, and leadership.

### Patterns of Success

Credit union success has been traditionally expressed in terms of penetration and growth. Table 8 divides the credit union movements for which statistics are available into three groups, based on penetration and growth ratios.

Credit unions have achieved greater penetration rates in the Caribbean and Latin America than in Africa and Asia. This is due to the age of the credit union movements in these areas and to

TABLE 8

GROUPINGS OF COUNTRIES ACCORDING TO VARIOUS SUCCESS CRITERIA

| | PENETRATION RATES | | GROWTH RATES | | |
|---|---|---|---|---|---|
| MEMBERS PER POPULATION | SAVINGS PER MEMBER | SHARES PER SAVINGS | MEMBERS | SHARES | SAVINGS PER MEMBER |
| LOWER THIRD | | | | | |
| INDONESIA | INDONESIA | INDONESIA | KOREA | THAILAND | THAILAND |
| THAILAND | THAILAND | THAILAND | GHANA | LESOTHO | KENYA |
| GHANA | LESOTHO | MALAWI | LESOTHO | SIERRA LEONE | UGANDA |
| MALAWI | MALAWI | MAURITIUS | SIERRA LEONE | SWAZILAND | ZAMBIA |
| SIERRA LEONE | MAURITIUS | SWAZILAND | SWAZILAND | UGANDA | BELIZE |
| SWAZILAND | SIERRA LEONE | TOGO | BELIZE | ZAMBIA | DOMINICA |
| TANZANIA | SWAZILAND | UGANDA | GRENADA | BELIZE | GUYANA |
| TOGO | TANZANIA | UPPER VOLTA | GUYANA | GUYANA | JAMAICA |
| UPPER VOLTA | TOGO | ZAMBIA | SURINAM | SURINAM | BRAZIL |
| ZAMBIA | UGANDA | BRAZIL | EL SALVADOR | BRAZIL | COLOMBIA |
| BRAZIL | UPPER VOLTA | EL SALVADOR | GUATEMALA | EL SALVADOR | DOMINICAN REP. |
| EL SALVADOR | BRAZIL | MEXICO | HONDURAS | NICARAGUA | NICARAGUA |
| MEXICO | PERU | NICARAGUA | NICARAGUA | PERU | PERU |
| MEDIUM THIRD | | | | | |
| CAMEROON | CAMEROON | CAMEROON | CAMEROON | CAMEROON | LESOTHO |
| KENYA | KENYA | GHANA | LIBERIA | GHANA | LIBERIA |
| LESOTHO | SEYCHELLES | LESOTHO | TANZANIA | KENYA | MALAWI |
| LIBERIA | ZAMBIA | SEYCHELLES | ZAMBIA | BARBADOS | SEYCHELLES |
| MAURITIUS | BELIZE | SIERRA LEONE | BARBADOS | DOMINICA | SWAZILAND |
| UGANDA | DOMINICA | TANZANIA | TRINIDAD/TOBAGO | GRENADA | GRENADA |
| SURINAM | GUYANA | BARBADOS | BOLIVIA | JAMAICA | SURINAM |
| COLOMBIA | BOLIVIA | SURINAM | BRAZIL | TRINIDAD/TOBAGO | BOLIVIA |
| DOMINICAN REP. | COLOMBIA | COLOMBIA | DOMINICAN REP. | BOLIVIA | ECUADOR |
| GUATEMALA | DOMINICAN REP. | DOMINICAN REP. | MEXICO | DOMINICAN REP. | EL SALVADOR |
| HONDURAS | EL SALVADOR | GUATEMALA | PANAMA | GUATEMALA | GUATEMALA |
| NICARAGUA | GUATEMALA | PANAMA | PARAGUAY | HONDURAS | HONDURAS |
| PARAGUAY | NICARAGUA | PARAGUAY | PERU | PANAMA | MEXICO |
| UPPER THIRD | | | | | |
| KOREA | KOREA | KOREA | INDONESIA | INDONESIA | INDONESIA |
| SEYCHELLES | GHANA | KENYA | THAILAND | KOREA | KOREA |
| BARBADOS | LIBERIA | LIBERIA | KENYA | LIBERIA | CAMEROON |
| BELIZE | BARBADOS | BELIZE | MALAWI | MALAWI | GHANA |
| DOMINICA | GRENADA | DOMINICA | MAURITIUS | MAURITIUS | MAURITIUS |
| GRENADA | JAMAICA | GRENADA | SEYCHELLES | SEYCHELLES | SIERRA LEONE |
| GUYANA | SURINAM | GUYANA | TOGO | TANZANIA | TANZANIA |
| JAMAICA | TRINIDAD/TOBAGO | JAMAICA | UGANDA | TOGO | TOGO |
| TRINIDAD/TOBAGO | ECUADOR | TRINIDAD/TOBAGO | UPPER VOLTA | UPPER VOLTA | UPPER VOLTA |
| BOLIVIA | HONDURAS | BOLIVIA | DOMINICA | COLOMBIA | BARBADOS |
| ECUADOR | MEXICO | ECUADOR | JAMAICA | ECUADOR | TRINIDAD/TOBAGO |
| PANAMA | PANAMA | HONDURAS | COLOMBIA | MEXICO | PANAMA |
| PERU | PARAGUAY | PERU | ECUADOR | PARAGUAY | PARAGUAY |

the macroeconomic differences among the regions. The credit union movements of the Caribbean and Latin America began in the early 1960s, whereas the push for credit union development in Africa did not really begin until the mid-1970s. With much lower national and per capita income levels, the newer movements of Africa have not had the time or resources to develop to the level of the Caribbean and Latin America movements. Although the countries of Africa generally have had lower penetration rates, many of those same movements have had the highest current growth rates. The Caribbean credit union movements have had much lower average growth rates.

Korea and Taiwan have small but strong movements. These movements were generally formed among a minority religious population. Although they have developed into strong institutions within that sector of the population, they have not expanded much beyond it. This situation parallels that in Great Britain, where the credit union movement grew first among West Indian immigrants and, because of that identification with a minority population, has not been widely accepted beyond that population.

Apart from the regional differences, credit unions have achieved greater penetration rates in smaller countries, whereas the largest numbers of members have been in medium-sized countries. GDP and GDP per capita have had a small, positive effect of savings generated and savings per member, although the most significant savings (where savings per member far exceeds average savings per capita) has taken place in low- to medium-income countries such as Ecuador, Ethiopia, Honduras, Liberia, Paraguay, Upper Volta, and Zaire. Share savings has been a significant proportion of national savings only in Dominica and Bolivia (15 percent and 13.6 percent respectively), while the next highest countries are Jamaica (8.3 percent), Ecuador (6.8 percent), Trinidad and Tobago (3.6 percent), Liberia (3.3 percent), Honduras (3.2 percent), and Korea (3.2 percent). At one time, Bolivian credit unions were reported to hold more in

savings than the entire private banking system of the country, but severe inflation and the devaluations of recent years (during which the government provided indexing protection to commercial bank deposits but not to credit union holdings) reduced this ratio considerably.

Penetration and growth rates were only weakly correlated with any of the macroeconomic or social indicators hypothesized for this study. In no case did the correlation approach significance. This would seem to indicate that there is no pattern of social and economic conditions that have significant impact on the chance of success of a credit union program.

## Development Agency Interests and Credit Union Development

As Table 4 shows, AID has been the major donor supporting the development of credit unions during the past 24 years. AID and WOCCU objectives are not always identical, however. AID is more interested in reaching the rural sector, especially farmers, whereas the primary concern of WOCCU (and other cooperative agencies such as Canada's CDF and SDID) is to develop a strong, viable worldwide credit union movement that is member owned, capable of providing credit union services to those who want and need them. The availability of AID funding for credit for small farmer production has often led to the design of projects that sacrificed the development of the federation and overall credit union movement for the immediate impact of moving funds to the rural area. In Cameroon, Lesotho, and Paraguay, follow-on projects have been required to strengthen the national federations at the end of intensive, exclusively rural efforts.

AID has not, since the early 1970s, placed a high priority on social and civic development, internal savings mobilization, financial deepening, and development of internal financial markets. In recent years, with the financial crises and foreign exchange problems of the developing world, AID has shown a renewed interest in domestic capital formation.

AID tends to focus resources on strategic countries, and the decision on whether to fund a bilateral program rests with the mission director rather than on an agency-wide approach or commitment. This creates imbalances in the regional confederations. Some member federations have received extensive assistance and developed strong movements, whereas other federations have received little or no support and have remained weak.

The goals and objectives of AID and the international credit union movement do not need to be identical, nor should AID fund projects in countries that are not of high priority. Project designs should, however, despite a commitment to rural development, consider that the financial viability and long-term stability of the national credit union movements are important to a long-range success in providing rural credit through credit unions or meeting other development goals.

## Project Design and Credit Union Success

In the credit union projects of the 1960s, the major rationale for these projects could be found in the mandates of the Humphrey Amendment to the Foreign Assistance Act of 1961 and the provisions related to social and civic development (Title IX). Credit unions were developed as examples of democratic institutions. Early projects in Latin America stressed institution building: typical objectives called for the development of a substantial number of successful local credit unions, the formation of a national federation, and its eventual self-sufficiency. AID generally supported a bilateral program aimed at promoting individual credit unions and chartering a national federation. Budget support for the federations was built into the project, with a schedule for achieving self-sufficiency. But the projects were justified primarily on basis of social and civic development.

In the early 1970s, AID's emphasis shifted from institution building to rural development and benefiting the poorest of the poor. The orientation of credit union programs also shifted. Funding was available only to build a rural lending capacity in credit unions. Budget support to federations, and even their formation, were predicated solely on their activities in rural areas (such as the rural orientation in the design of the Paraguayan federation, the wheat loans to the Credit Union Federation (FENACRE) in Bolivia, the phasing out of all support other than rural lending to the Credit Union Federation (FECOAC) in Ecuador, exclusive support to directed agricultural production credit programs in the original projects in Lesotho and Cameroon, and the concentration on rural activities for ACOSCA).

## Effects of a Predominantly Rural Focus

Credit unions are generally viewed as urban institutions, although the early Raiffeisen societies on which credit unions were modeled were primarily rural. In Latin America, credit union federations have repeatedly attempted, even without guidance from AID or other donor agencies, to develop and operate rural credit programs and promote credit union growth in rural areas.[32] But a focus exclusively on rural credit unions (defined as small farmer agricultural) produces an imbalance and weakness in both the credit unions and the credit union federations of the countries involved. At the individual credit union level, experience has shown that:

- Rural populations have significantly lower savings rates than urban populations. Growth through internal capital mobilization is slow, because rural populations do not have sufficient resources to capitalize a credit union adequately;[33]

- The borrowing and repayment pattern of agricultural loans differs from normal credit union patterns. There are distinct seasonal demands for loans that exceed the credit union's capability to provide them, followed by long periods of little or no activity. Loans are repaid in one lump payment rather than at regular intervals. The credit union cannot generate a steady income flow from its portfolio, and, since the turnover rate for rural loans is lower than for urban loans, the total income generated from these loans is lower;

- Directed agricultural production credit is a high cost, labor-intensive operation. Host government support to directed agricultural production credit programs, in the form of agricultural technicians and other services, seldom materializes, and the technical assistance requirements (real or perceived) exceed the ability of the local credit union to provide from internal sources;

- Expense/income ratios are much higher in rural credit unions than in urban ones;

- Production loans in agriculture are a greater risk than normal credit union loans. Delinquency rates are higher in rural credit unions. Even in donor-assisted programs, the financial risk for these loans is borne by the local credit union -- a high risk situation for a small institution;

- Many official programs set artificially low maximum interest rates for loans to small farmers that do not cover the costs and risks of making these loans. Even relatively low delinquency and default rates can decapitalize a credit union involved in these programs;

- In addition to artificially low interest rate ceilings, many countries have rural development banks that offer greatly subsidized credit. Credit unions, as private institutions, require a positive margin to survive; yet this margin is often not competitive with rates offered by subsidized programs; and

- The high level of leveraging made possible and encouraged by external loan funding (10 or even 15 times savings) for small farm credit loans greatly increases the long-term risk to rural credit unions. High leveraging means that a 10 percent default rate (which might be acceptable in many situations) would completely eliminate the assets of the credit union.

Credit unions generally need a balance of rural and urban (village) members. Urban members tend to be net savers, whereas rural members tend to be net borrowers. Thus, urban members are necessary to generate sufficient internal capital to sustain the lending activities. A recent evaluation of the credit union movement in Paraguay concluded that even rural credit unions should have 50-75 percent urban members to achieve financial stability and a balanced portfolio.[34]

A disproportionate emphasis on the rural sector also weakens a national federation. Federations require a balanced membership of both urban and rural-oriented credit unions to achieve the growth levels necessary for self-sufficiency and to balance cash flows, income, and lending and repayment cycles. The urban sector is also important as a source of leadership and technical skills. The financial and membership base of a strictly rural-oriented movement is seldom sufficient to provide the resources necessary to develop a strong federation.

In addition, a disproportionate emphasis on the rural sector can lead to dissatisfaction on the part of the federation's urban members because they are not eligible to use external resources and have to subsidize losses incurred by rural credit unions. In extreme cases, as in Costa Rica, this can lead to disaffiliation, thus reducing the federation's ability to achieve self-sufficiency and mobilize sufficient internal resources to meet loan demands without resorting to external capital. The Paraguayan evaluation concluded that to become financially self-sufficient a federation should have a membership base with approximately 75 percent credit unions.[35]

The experience of credit unions in rural areas of the developing world parallels that of other development attempts in these areas: the sector is a difficult one in which to work. Nevertheless, credit unions have succeeded in establishing a

permanent presence in many rural areas and are increasingly involved in these areas. Some lessons learned from the experiences are:

- The financial strength and viability of the institution (both the individual credit union and the federation structure) are essential for long-term success. Projects that ignore this fact and force credit unions into a distorted development path contribute to the long-term weakness of the movement. Programs that allow a balanced growth have the greatest potential for a long-term impact on the rural sector;

- Credit unions are still too new and fragile to absorb all the risks of large, donor-sponsored rural development loan programs. Provisions should be made for stabilization funds, insurance, and guarantee programs and other mechanisms to reduce the risk of financial loss in these programs; and

- Large loan programs are sometimes detrimental to the financial stability of the credit union system. It is generally better to have frequent moderate-sized programs than a single, large infusion of capital.

Central Credit Union Operations

Experience has indicated that it is difficult for federations to become self-sufficient unless they perform a centralized savings and credit service for their member credit unions. Dues payments generally fall far short of projections, and unless a federation has an interlending capability, it is not likely to become financially strong. In Ecuador, AID encouraged the federation not to form a central credit department. Instead, AID supported a separate cooperative bank, which lent directly to individual credit unions. Without the interlending program, the federation remained weak. In countries such as Bolivia, Cameroon, Honduras, and Paraguay, where a strong central credit union has been attached to the federation, the federations have become relatively strong and financially self-sufficient under normal circumstances.

## Critical Size Issues

Credit union viability (at the local, federation, and confederation levels) depends on a resource base adequate to support the management and administration of the organization. In the early stages of credit union development in Latin America, and to some extent in Africa today, the focus has been to increase the number of credit unions and to establish national federations. The implications of minimum viable size and adequate resource base, although acknowledged, were seldom addressed in early project designs. Many credit unions proved to be non-viable organizations and were later liquidated or merged with other credit unions. The financial difficulties of the majority of federations in Africa today stem from the small credit union base supporting them. ACOSCA was formed before an adequate resource base was established to support a meaningful level of services.

This does not mean that the resource base must be firmly established before development activities take place; instead, the potential resource base (in terms of members, savings, and loan volumes) must be identifiable. Potential members must be involved in the money economy, have a capacity and willingness to save, and need credit.[36] And the development of infrastructures should not outpace that of the base structures that are to support them.

## Resources Employed and Credit Union Success

More than $121 million has been committed to credit unio development projects in 56 countries during the past 24 years. This amounts to about $21 per credit union member in these countries. Some of the projects and movements have been successful, others barely so. The pattern of resources employed has been an important factor in explaining the relative success of the individual projects.

## Timing of Resources

The most successful credit union movements had relatively large amounts of assistance, both technical and financial, extended over a long period of time. Ecuador, for example, benefited from technical assistance for nearly 10 years. Bolivia had regional and bilateral assistance for more than 8 years. The technical assistance project in Paraguay ran for nearly 10 years, and, based on a recent project evaluation, an additional technical assistance project to strengthen the credit union federation is needed. SDID has provided technical assistance to Cameroon, Upper Volta, and Zaire for 6-12 years.

Building a successful credit union movement in a country is therefore a long-term project. The payoffs tend to be high, but the commitment to a project must be long term to succeed.

## Peace Corps Volunteers

Peace Corps volunteers have played an important role in successful credit union projects. In Ecuador, four groups of 25 volunteers each (a potential total of 200 person-years of effort) were committed to the credit union movement. In most other countries, the Peace Corps has played a lesser, but still important, role in promotion and training.

## Resident versus Non-resident Technical Assistance

In Latin America, credit union development was supported in its early stages by both bilateral and regional AID-funded projects. The bilateral projects permitted an intensive in-country effort with resident technicians during the organization phase of credit union activities. The regional project provided backstopping to the bilateral projects, continued (but less-intensive) assistance to federations once bilateral funding

ended, and the ability to offer some assistance directly to emerging credit union movements in countries in which the AID mission did not support a bilateral program.

Regional projects appeared to succeed in Latin America because:

- The work throughout the region to be served was basically the same; that is, the problems, issues, and solutions were essentially similar for all clients;
- The client population was essentially homogeneous, speaking the same language and sharing the same cultural background; and
- The national federations needed continuing, but not intensive, support and assistance.

Regional projects appear less effective in promoting the original organization of base-level cooperatives or assisting federations in the early stages of their development. Strong country programs are more effective in these activities.

Technical assistance should adapt to the stage of development and particular need of the local institutions. This means that technical assistance plans should be sufficiently flexible to meet the changing needs of the cooperative system as it grows, and there should be sufficient flexibility in the use of short-term technicians to meet specific needs as they arise.[37]

External Funds

The major incentive for membership in a credit union is the opportunity to borrow, but the low initial savings base in developing countries supports such a limited level of loan activities that the attraction of a credit union is weak. External funds, in the form of loans or seed capital to create an initial pool of loan funds, are an effective way to stimulate credit union growth.

The availability of external resources, however, can create problems. The greatest growth rates have been achieved in situations supported by seed capital loans or grants, but the greatest problems have also arisen in these same situations. Delinquency rates soar when external funds are used, and although management skills increase with the growth of internally generated funds, this increase does not take place rapidly enough when a large amount of external funds is suddenly available.[38]

The experience of credit unions throughout the developing world suggests that external funds should be applied moderately, consistent with the managerial capacities of the institutions involved. Too few funds stifle the potential growth of the movement, whereas too rapid an infusion of external capital exceeds the absorptive capacity of the institutions. Frequent injections of moderate amounts of loan funds can build the managerial capability to implement larger loan programs effectively and stimulate membership and savings.

## The Clergy and the Credit Union

An often overlooked contribution to the credit union process is the role that missionaries and priests have played in promoting, forming, and providing legitimacy and stability to newly formed credit unions. Probably 90 percent of the early credit unions in Latin America were parish or community credit unions sponsored by the local priest. The credit union movement of Asia is still primarily confined to the Christian population. Early credit unions in Africa were sponsored by priests and missionaries.

This church association was a deciding factor in the early success of the credit union movement. The parish provided a common bond and a strong moral influence that instilled confidence in potential members. The priest was frequently the

treasurer, and the church provided a safe location for the credit union and the savings of its members; often the church had the only safe in the community. The church provided a location for a credit union in parts of the countries that would normally not attract commercial financial institutions.

This association had its drawbacks as well. In Latin America, the predominant religion was Catholicism, so that the credit union was viewed as part of the majority culture. In Asia and Africa, the Christian population is a decided minority, and the early association of credit unions with a minority religious group has tended, especially in Asia, to impede the spread of credit unions to other religious groups.

## The Role of Government

Surprisingly, except for overtly hostile situations as in Nicaragua, credit unions have thrived under a wide variety of governmental forms. In Mexico, the government has never supported the church-oriented credit union movement, and credit unions have no legal status. Nonetheless, the movement, although small, is strong. Credit unions survived the Idi Amin Dada regime in Uganda, and are today re-emerging as strong local institutions. Credit unions have succeeded in Paraguay, with a stable dictatorship, and in Bolivia, with its rapid sequence of unstable governments.

Government plays an important role in providing an appropriate legal and political environment for credit union activities. Most laws governing these activities in the developing world have been developed or substantially modified under the guidelines of bilateral or regional projects and provide an adequate, but sometimes overly permissive, environment for credit union activities. Frequently lacking are minimum standards for credit union operations, loan delinquencies, and leveraging and other key ratios, and provisions for adequate

auditing, inspection, and review. The stabilizing influence of strong supervision, regulation, and auditing, such as that provided in the United States by regulatory agencies, does not take place, or it is relegated to the national federations.

Most host government cooperative agencies and other agencies involved in programs such as supervised credit are understaffed, underbudgeted, and often politicized. Moreover, adequate support in the form of agricultural technicians promised for rural development programs has generally not materialized, and projects that depended on this assistance have generally had to provide it internally.

The critical roles for government that have an impact on credit union success involve:

- Providing an appropriate legislative and regulatory framework without interfering in operations and internal policy decisions;
- Moderating inflation or providing official mechanisms for adjusting to inflation and devaluations. However, this role is frequently in conflict with the self-interest of debt-ridden governments of the developing world;
- Refraining from setting unrealistic pricing policies in terms of interest rates or farm commodity prices (for rural credit unions);
- Refraining from providing development credit that is highly subsidized, especially in rural areas; and
- Having a positive, supportive policy toward credit unions, or at least refraining from overtly anti-credit union activities.

## The Project's Socioeconomic Environment

### Inflation

Without doubt, the most serious threat to credit union stability in the developing world is the actual or potential high rate of inflation. Credit unions depend on their ability to

monetize savings. In a situation of hyperinflation, however, monetizing savings is normally not in the best interest of the saver. In Chile, for example, credit union loans for durable consumer goods represented a demonetization of savings and a rational investment strategy on the part of members.

In many countries, savings in commercial banks can either be denominated in foreign currencies, or are protected by inflation-adjustment indexes. These same mechanisms are seldom available to credit unions. This situation, compounded by unrealistic interest rate structures, creates a strong disincentive to deposit voluntary savings in credit union.

Co-location of Credit Unions and Other Cooperatives

To integrate marketing, supply, and credit operations for a rural area, AID has on several occasions fostered the policy of co-locating a credit union and an agricultural cooperative in a given community. This has generally not been successful because the two institutions compete for scarce leadership, office space, political support, loyalty, and resources.[39] Co-location of two institutions in a given area, with a relatively artificial distinction between their functions, has also created confusion among the potential members.[40]

In other cases, AID has attempted to divide the functions of rural institutions among two separate forms of cooperatives. Notable examples of this are the arrangements between the Credit Union Federation (FECACH) and Federation of Agricultural Cooperatives (FECOAGROH) in Honduras, and between the Credit Union Federation (CREDICOOP) and the Cotton Marketing Cooperative Federation (UNIPACO) in Paraguay. In both instances, the relationships between the two cooperative organizations were strained at best and the weaker agricultural federations failed during the course of the projects.[41]

## Critical Linkages to Other Institutions

### The Role of Federations

The standard development model for credit unions provides for a vertically integrated system, with local credit unions grouped into federations. In the developing world, almost every country has a national-level association of credit unions.

This organizational structure was developed for both historical and practical reasons. Historically, the West European, U.S., and Canadian movements developed state-wide or provincial leagues, and this was the model that CUNA and WOCCU employed in the developing world. On a practical level, CUNA recognized early that foreign assistance to credit union movements in developing countries was likely to be of limited duration. If CUNA focused only on developing base-level cooperatives in the course of a project, it might be able to demonstrate isolated cases of success. Once the project was terminated, however, there would be no continued support to those organizations and no mechanism for expanding the movement. CUNA felt that autonomous expansion resulting from imitation or from the altruistic motivation of successful cooperative leaders would not be as extensive as that generated by an indigenous organization that benefited from expansion and growth.

In the credit union model, therefore, federations play two roles: they provide ongoing support to existing credit unions and serve as an institution committed to organizing new credit unions and expanding membership. A federation also provides a mechanism for voicing concerns and negotiating at a national level.

Several features of the credit union environment make this a rational strategy. First, all credit unions in a country -- whether rural or urban, large or small, agricultural or

industrial -- deal with the same commodity: money. They all face, to greater or lesser extent, the same problems: interest rate policies, savings mobilization, bookkeeping, delinquency, investments, and liquidity. In this situation, a central organization can provide effective and valuable backstopping to a large number of organizations. Second, a federation ensures that a credit union does not depend on a single manager or knowledegable person; if that person leaves, the federation provides a base for retraining and supporting new staff. Third, since credit unions are authorized and influenced similarly by national policies, a single national organization can speak more effectively than each credit union separately.

Participants in the Cooperative Advisory Group meetings in June 1984 unanimously concurred that the continued growth and expansion of credit unions (and other forms of cooperatives) in a country depended on the presence of strong national institutions.[42]

## The Role of Confederations

The credit union model also postulates a role for international associations of credit unions, particularly in the form of regional confederations. Like the federations, these institutions were created for both historical and pragmatic reasons. Historically, they were to parallel the third-level cooperative organizations in Canada (CCCS) and the United States (CUNA), providing regional services and representing country federations in a worldwide credit union organization -- WOCCU.

There was a practical justification for confederations and their predecessor regional programs. CUNA viewed the initial bilateral programs as a necessary, intensive effort to create institutions and build a capacity to sustain them. However, it was unlikely that AID would continue bilateral efforts indefinitely and was important to let the movements grow independently. Regional technical assistance projects, such as

the CUNA/Latin American Regional Office program in Panama and the technical assistance programs envisaged for ACOSCA and COLAC, offered the vehicle to continue support on a less-intensive basis after bilateral projects phased out.

The four confederations of the developing world have evolved differently. The Latin American confederation (COLAC), which was formed in 1971, was preceded by seven years of regional technical assistance projects centered in Panama. COLAC, from the beginning, inherited an established tradition in regional technical assistance; an experienced core staff already comprising Latin Americans; a strong base of established cooperatives; and national confederations that were already dues-paying members of CUNA, International. From the beginning, COLAC was planned to mobilize donor resources and provide central financial services and training for the region.

ACOSCA, however, was formed in 1968 on a base of a few credit unions in three African countries. There was no prior history of a regional technical assistance effort and no trained African staff with experience in providing international technical assistance. In addition, ACOSCA was formed on a continent that is divided into Anglophone and Francophone countries, complicated by multiple ethnic, linguistic, and tribal affiliations. Through a series of regional AID-funded projects, ACOSCA grew into a large organization with a staff of 32 professionals.[13]

The Caribbean (CCCU) and Asian (ACCU) confederations resulted from the decision in 1971 to establish WOCCU to replace CUNA, International. The structure of the new organization called for regional confederations to serve as members of WOCCU, as opposed to the direct national federation membership of CUNA, International. CCCU and ACCU were therefore formed. Neither had the historical background of regional technical assistance programs, and neither planned to be more than regional

representational organizations. Both remained small and provided only a limited number of services and meetings for their members. CCCU received no external donor financing until 1980, and ACCU has never requested official bilateral foreign assistance funds.

The concept of regional confederations was based on an inaccurate perception of the U.S. and Canadian models. But in both of these cases, these more closely parallel the emerging national federations than the regional confederations in the developing world. There is a single national government, a single currency, and essentially a single culture. In the United States, at least, there is a national credit union act and other national legislation that affect all credit unions in the country (even state-chartered ones) and provide a logical reason for a confederation. These conditions do not exist in the developing world.

Under what circumstances does an international cooperative organization, such as the credit union confederations, make sense? Aeschliman and Mandizha hypothesized that the necessary preconditions include:[44]

- A multi-dimensional client or service population (national affiliates) that has the demonstrated financial capability to support a continental organization; and
- A demand for services generated from below, with objectives and demonstrated needs for a continental organization at the national level. The direction of the confederation should be set by the member national movements and not the confederation itself.

Not mentioned, but equally important, factors affecting the potential viability of an international confederation as a self-supporting provider of technical assistance are:

- A single product or commodity (in the case of credit unions, money);

- A common set of problems that affect all members, so that they can be addressed effectively from a central point with the same techniques;
- Cultural, linguistic, and religious homogeneity; and
- A common currency, or at least equally stable and unrestricted currencies.

ACOSCA and ACCU face situations in which several of these conditions are not present. It may not be possible to build self-sustaining confederations that provide a high level of technical services to the national federations in these areas. COLAC at least exists in a largely homogeneous culture with a strong local credit union base and a historical association with a regional office. CCCU exists larely in the English-speaking Caribbean, with a relatively common cultural background and heritage.

## The World Council

Perhaps the most important linkage influencing the success of the credit union movement worldwide is that of the local credit unions, federations, and confederations with WOCCU. That so many development agencies have supported credit union programs is largely the result of WOCCU's constant effort at resource mobilization. This role, which frequently results in projects that do not provide an overhead for WOCCU, has been a high priority since its formation.

The membership structure of WOCCU is also an important factor in explaining credit union success. WOCCU's relationship to the developing world movements is not one of a foreign contractor or consultant, but of a membership organization serving its members. The overseas activities of WOCCU are supported by substantial funding from its own member confederations in both the developing and developed countries.

(The U.S. confederation, CUNA, for example, pays 15 percent of its own dues income to support international credit union activities.)

## The Role of Insurance

Through CUNA Mutual Insurance Society (CUNA Mutual) and other independent insurance cooperatives or groups, nearly 50 percent of the credit unions in the developing world are covered by insurance protection -- usually bonding insurance for credit union managers and staff, and life savings and loan protection insurance for members.

This insurance has provided stability and income to the fledgling credit union movements of the developing world. To credit union members, bonding means that the savings they have invested in the credit union are protected against fraud and mismanagement by credit union officials. Life savings insurance provides a member's family with an amount equal to that member's savings (up to $2,000) in case of death, whereas loan protection insurance means that an individual's debt (with a maximum of $2,000) will not be inherited by his family in the event of death. Often this is the only form of insurance available to members.

The importance of insurance as a stabilizing influence in the international credit union movement should not be underestimated. Since 1981, CUNA Mutual alone has paid out approximately $3.7 million each year in insurance claims to credit unions the developing world.[45]

In addition to their stabilizing influence, insurance programs provide significant income to credit union federations and regional confederations. Although no general statistics are

available on total income flows from insurance programs, this has been a major income item and source of financial stability for many federations.

The insurance activities of CUNA Mutual and others have represented a long-term commitment to continued growth and development in the international credit union movement. CUNA Mutual has provided stable employment to a large number of host country credit union personnel, as well as an avenue of upward mobility within the ranks of international credit union institutions.

## Management, Participation, and Internal Issues

Most issues affecting the ability of credit unions to survive and expand in the developing world are related to the managerial skills needed to administer increasingly complex financial institutions.

### Single- versus Multi-purpose Cooperatives

Credit unions have tended to favor a single-purpose approach because it is easier to manage, especially for persons without previous management skills and training. Development agencies and host governments have tended to favor a multi-purpose approach, especially in rural areas, and have encouraged multiple activities in rural credit unions. There are outstanding examples of credit unions evolving into successful multi-purpose cooperatives, such as La Merced and Madre y Maestra in Bolivia, and Sta. Elisa in Peru. Most credit unions for small farmer production have included agricultural supplies and some marketing as additional services. Many credit unions in Bolivia provided medical clinics, small consumer stores, and school supplies. For the most part, however, credit union practitioners have concluded

that the managerial skills required to manage multi-purpose cooperatives successfully exceed those available in most newly formed institutions, especially small rural cooperatives.

In general, federation experiences in multi-purpose activities not directly related to credit and insurance have not been encouraging. A tomato farm in Bolivia and cotton gin in Paraguay are typical examples of unsuccessful business ventures, while supply activities have brought several federations dangerously close to insolvency. CREDICOOP in Paraguay, however, did successfully incorporate marketing of its members' cotton, and FACACH in Honduras has reportedly had good success with its marketing ventures.

Credit union organizations engaged in multi-service activities appear to be more successful when they have evolved into the additional activities as a result of member interests than when the multiple activities are part of the project design of the development agency or when the cooperative or federation undertakes an activity that is unrelated to its past experience. In the first case, the additional services represent a felt commitment by the local organization and are likely to be the result of a sound, deliberate business decision. In the others cases, project designs tend to err on critical assumptions, and the services represent a foreign implantation rather than a commitment of the local leadership.

Interest Rates

Interest rates charged on loans and paid on savings have tended to be unrealistically low. In some cases, this has been the result of donor agency requirements. The Inter-American Development Bank, for example, placed a restriction that interest rates to final borrowers could not be higher than those on other Bank loans through other financial institutions. Since the other institutions, usually public development banks, are highly subsi-

dized and do not have to recover costs, this restriction makes it difficult for credit unions to cover costs and adopt a consistent and rational pricing strategy that is compatible across the investment portfolio.[46]

Realistic interest rate structures must be incorporated into credit union project designs to enhance the ability of credit unions to attract local member savings and be competitive in the financial marketplace. An interest rate policy that is market oriented is particularly relevant in high inflationary economic environments, and policies such as indexation, variable interest loans, and other risk reduction techniques should be incorporated in project plans and training.[47]

Ladman's study of Bolivian agricultural credit institutions used a simple method to calculate minimum interest rate requirements in a financial institution (in this case, the Bolivian Agricultural Bank):[48]

TABLE 9

ESTIMATED BREAK-EVEN INTEREST RATES

| | Amount | Percent of Loan Portfolio |
|---|---|---|
| Average loan portfolio (net of write offs) | $b923,800,000 | 100.0 |
| Personnel costs | 89,500,000 | 9.7 |
| Interest expenses | 78,200,000 | 8.5 |
| Bad debt allowances | 16,400,000 | 1.8 |
| Other | 17,000,000 | 1.8 |
| TOTAL COSTS | 201,100,000 | 21.8 |

The minimum interest rate that the financial institution could charge its borrowers and break even on its portfolio was 21.8 percent, representing a basic spread on funds of 13.3

percent. In this case, the 8.5 percent interest rate on borrowed funds represented low-interest-rate development loan funds. In reality, the inflation rate in Bolivia at the time averaged 20 percent per year, and a credit union operating on internally generated capital should have assumed at least a 20 percent cost of funds in estimating break-even interest rates. Most credit unions in Bolivia at that time charged 12 percent interest on loans to members.

This formula could be modified to take into account different investments and yields, as well as other expense categories. It could also be used to yield a quick estimate of the required interest rates in a given situation.

Loan Delinquency

A recent study concluded that credit was too difficult a managerial task for emerging cooperative institutions.[49] Yet credit unions, which deal only with credit, are by far the most widespread single form of cooperative organization in the developing world.

This seeming paradox might be explained because institutions:

- Manage well the key resources that are defined as essential to their business; and
- Are more conscientious about managing resources that are generated internally than those that are perceived to be supplied by outsiders.

For agricultural cooperatives, the key resources of the institution are typically input supplies and products for market. Credit programs are often an afterthought and viewed as not the real purpose or even a major activity of the organization. In addition, funds for credit are usually provided by outside

sources -- donor agencies, governments, and others -- rather than generated by the membership and representing a commitment of membership resources.

The only business of credit unions is the management of funds, and they are the key resource of the institution. For the most part, they are generated internally and represent a concrete commitment of resources by the membership. Consequently, funds management is given considerable attention and is more effective in credit unions. Available data generally support this hypothesis: delinquency rates appear to be higher in programs in which the funds have been provided by external sources rather than generated through internal savings mobilization.[50]

In agricultural programs, delinquency rates are related to the intended use of the credit. The consensus of participants in the Cooperative Advisory Group meetings in June 1984 was that loans should be for purposes that generate the ability to repay the loan. Loans for subsistence agricultural or non-income-generating activities have greater problems with delinquency.

Management Training

Given the critical importance of competent management for the successful operation of credit unions and federations, a constant need exists for training in budgeting, planning, income and expense analysis and forecasting, membership and savings promotion, delinquency control, collections, and credit administration. It is difficult for a credit union or federation to develop without a constant supply of training assistance because of the continual turnover of personnel and a need to develop more sophisticated management skills to deal with changing conditions. The importance of the vertical structure of the credit union movement becomes apparent in this context, because it ensures a continued effort at management, employee, and volunteer leadership training at all levels, long after international assistance

terminates. The role of short-term issue-oriented assistance such as that provided by VOCA is also important. It allows for an immediate response to a new or unforeseen issue that cannot be met in the traditional project structure.

### Paid Full-time Managers

Many studies have pointed to the importance of full-time, paid managers in the successful growth and development of a credit union. Ironically, however, new credit unions cannot afford to pay a full-time manager until they have achieved a reasonable level of growth and success. In Africa, external grants or government funds have been solicited to pay local managers. However, the situation has tended to promote a continued dependency on external donor sources and a lack of self-sufficiency on the part of the local credit unions and federations.[51] In Latin America, the tendency has been to establish revolving loan funds to fund managers initially. The results were considered so successful that this model was built into every regionally supported project and most of the bilateral programs.

### Monitoring and Control

Projects should be designed to permit the measurement of project products on a regular basis. This includes provisions for data gathering and analysis at regular intervals. Moreover, these monitoring and control functions should be developed as ongoing functions in the local institutions. External control and monitoring should complement the activities of the local institutions rather than replace or substitute for them.[52]

## Alternative Approaches to Credit Union Development

Most of the donor agencies listed in Table 4 have been involved in the development of the same international credit union system. CDF, for example, works only with CUNA/WOCCU-

sponsored credit union systems. The German, French, and other West European donors tend to provide short-term funds for specific activities associated with an established credit union or credit union system. In essence, the donor activities have all contributed to the development of the set of institutions that are considered in this study and therefore do not represent alternative approaches to development. Within the credit union sphere, there are few, if any, cooperative credit societies that have been developed outside of the framework of a vertically integrated structure involving local credit unions, national federations, and regional confederations.

One variation on the major model has been the approach of SDID, which is the international development arm of the Caisses Populaire movement in Canada. Working primarily in Francophone West Africa, SDID places greater initial emphasis on developing local credit unions (as did the early bilateral AID programs in Latin America).

In their early stages, these credit unions are developed as savings organizations, building a capital base, and the lending activity is minimized. Funds are invested only in safe projects or deposited in banks and other savings institutions. The credit aspect is introduced at a later stage, after the local management has learned certain basic skills. Higher-level organizations are also developed at a later stage than in U.S.-supported credit union programs and tend at first to be regional rather than nation-wide organizations. Dues play a minimal role in the support of the regional federations ("unions"), which are designed to become self-sufficient on the basis of interest spreads on their central credit union activities. These regional federations may remain independent or affiliate into national organizations, and would likely be affiliated to ACOSCA and WOCCU.

Although this approach differs slightly from the U.S. model, the basic assumptions are identical: a higher-level organization is necessary to support base-level credit unions, central financing is critical to the financial viability of these higher-level organizations, and they need to be further integrated with the regional and international credit union movement.[53]

## SUMMARY OF LESSONS LEARNED

### Factors that Contribute to Success

Technician reports, evaluations, special studies, and data collected for this study all point to a consistent set of factors that influence the success of credit union programs. These are summarized below.

#### Base-level Cooperatives

- A prior history of informal savings and credit activities among the local population. This indicates a predisposition to engage in savings, lending, and repayment;
- Financial shallowness, that is, the presence of few formal financial institutions competing for savings and credit among the potential members of the credit union. This appears critical in the early stages of credit union development because small, new credit unions tend to be inefficient financial institutions requiring large spreads to cover costs and capitalization. These spreads do not exist in a highly competitive financial market;
- An adequate resource base in terms of number of potential members, income, and accumulated savings that can be monetized;
- Paid, full-time managers;
- Rational interest rate structures in the credit union;
- Stable currency (low rate of inflation);
- Agricultural lending for cash crops and export crops rather than subsistence or food crops;

- Control over the marketing process in agricultural lending;
- Regular supervision, auditing, technical assistance, and training;
- Access to external loan funds (in a moderate amount) to meet seasonal or peak loan demands and to expand loan volumes;
- Access to stable, secure, adequate-yielding investments for surplus funds;
- A balanced membership including enough urban or middle-income members to build sufficient business volume to support the organization;
- Effective and extensive education and training of staff, elected leaders, and members;
- Vertical integration, supported by higher-level organizations; and
- Programs to reduce the risk of defaults, especially in small farmer lending.

Federations

- An adequate resource base of primary credit unions;
- Membership balanced among urban and rural credit unions;
- Central credit union or interlending capabilities for the federation;
- A long-term, balanced technical assistance project that permits the federation to evolve and grow over an extended period of time;
- Moderate amounts of seed capital loans or grants, with a realistic spread, to build initial loan volumes; and
- A solid human resource base for both leadership and staff.

Confederations

- Homogeneous culture, language, and religion in the region;

- A common currency or at least freely exchangeable currencies;
- A prior history of regionally provided technical assistance;
- Starting small, developing services in accordance with the ability and willingness of the member federations to support them;
- A sufficiently large, stable base of national federations and local cooperatives to support the activities of the confederation; and
- A solid human resource base for both leadership and staff.

## Factors that Inhibit Success

Apart from the converse of the factors that facilitate credit union success, a number of factors are consistently listed as inhibiting it.

### Base-level Cooperatives

- Existence of a past history of government-administered loan programs with high default or delinquency rates among the potential members of the credit union;
- Presence, especially in rural lending programs, of a government-subsized loan program that provides loan funds (however limited or inefficiently) at interest rates far below prudent market rates;
- Existence of attitudes among the potential members that loans are grants, or a prior history of non-use of interest rates as a cost of funds;
- Inadequate management and organizational development skills; and
- Inadequate training.

### Federations

- Hard currency external loans;
- Inadequate spread on loan funds;

- Insufficient time frame to develop a viable institution; and
- Political rather than economic decision making.

Confederations

- The development of a large staff and ambitious program in advance of the national demand or ability to pay for these services; and
- Political rather than economic decision making.

## Guidelines for Project Designs

The guidelines discussed below are based on the patterns of success and review of the lessons learned from the past 24 years of credit union development projects.

- Project designs should address the issue of sustainability, especially of the national-level federation.
- Credit unions should not be expected to assume the risks of agricultural lending programs that would normally be covered by government budgets, subsidies, or bailouts in a government-sponsored program. Agricultural lending, especially to small farmers in traditional crops, is an exceptionally risky venture. In most official credit programs, these risks are covered by government subsidies. To ask an institution to absorb risks and losses in this area places too great a burden on the credit union.
- Equal emphasis should be placed in the project design on the structure and financial stability of the federation as on the provision of direct services to members. Rural-oriented projects, in particular, have often ignored the long-run viability of the federation.
- Seed capital for interlending, such as grants and loans for production credit, can easily overburden the administrative capacities of new institutions. This capital should be provided in increasing increments as the institutions grow and develop the capability to manage it. External credits should provide sufficient spread to cover fully the costs of administering the loans.

# NOTES

1 Statistics provided by the World Council of Credit Unions (WOCCU), Annual Reports, 1982-1983.

2 As used in development literature, a blueprint approach is one that attempts to transfer a given model, organizational form, or development experience from one country to another.

3 WOCCU was established in 1971 as the international apex organization of the credit union movement. The Credit Union National Association (CUNA), International continued to be the agency responsible for implementing the international credit union assistance programs of AID through 1980, when those functions were transferred to WOCCU.

4 "Financial deepening" is a term used by Edward Shaw in 1976 to describe a process of developing sufficient financial services, institutions, and instruments in a country to support economic development. See Edward S. Shaw, Financial Deepening in Economic Development.

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26 Tendler, What to Think About Cooperatives.

27 See, for example, George Wohanka, Final Report: CREDICOOP, 1979, and various memoranda; Donald, Credit Unions and Production Lending; Mindock, Assessment of Agricultural Credit in Lesotho; Richard Lowe, Report on the Present Status of the Lesotho Co-Operative Credit Union League, 1976; and Jack Dublin, David P. Harmon, and Mebratu Tsegaye, Project Evaluation Summary: Malawi Union of Savings and Credit Cooperatives Project, 1983.

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# CHAPTER THREE

# HOUSING COOPERATIVES

## INTRODUCTION

### Background

As a result of high population growth rates, increased migration from rural to urban areas, and an overall lack of resources, the poor and middle-income populations of the developing world find it ever more difficult to house themselves. The magnitude of the problem is staggering:

> Over the past 25 years the urban population of the LDCs has increased at an unprecedented rate of almost 5 percent per year, nearly twice the rate of growth of the overall populations. In 1980, it was estimated that the cities of the LDCs contained over 840 million people or about 28 percent of their total population. In a single generation the cities had absorbed more than 550 million people, or about 65 percent of the total population.
>
> The UN [United Nations] estimates that another 1.2 billion people will be living in existing or new cities in LDCs by the year 2000.[1]

In 1975, the Cooperative Housing Foundation (CHF) estimated the worldwide need for housing at 200 million units by the year 2000:

> Rural to urban migration and population growth in the developing countries will swell the total urban population from 700 million to over 2 billion people during the same period. Thirty to fifty per cent of the people now in urban areas of developing countries are living in inadequate, overcrowded conditions, often without minimum sanitary services. In rural areas shelter conditions are even worse, with seventy to ninety per cent lacking the minimum shelter and services required for good health.[2]

The demand for housing is addressed by both the public and the private sectors. In the public sector, a government agency constructs or arranges for the construction of housing and then donates, rents, or sells this housing to individual families. Public sector programs, however, cannot meet the housing shortage. During the 1960s, for example, public sector programs in Latin America could meet only 4 percent of the demand for housing. In other areas of the developing world, the shortfall has been even greater because public sector investments in housing have been less in those areas.[3]

The private housing sector may be divided into two sectors: the formal or official private sector and the informal or clandestine sector. The formal private sector may be further subdivided into two categories: developers, who build houses principally for the middle-and upper-income groups; and non-profit cooperative, labor, religious, professional, and charitable groups building mostly low-cost housing for lower-income families.

This formal private sector still does not bridge the gap between the supply and the demand for low-income housing. One reason is that the population of slum and squatter areas, where the poorest groups of people live, is growing at twice the rate of urban areas.[4] Housing for this group would necessarily have to be low cost. Since there is a direct relationship between the cost of a house and the profit margin, few developers build low-cost housing.[5] Other groups generally lack access to sufficient capital resources to make a significant contribution to reducing the housing deficit.

The vast majority (as high as 60-80 percent) of housing constructed in the developing world, therefore, is built by the informal private sector: millions of people doing it by

themselves, any way they can, and with any materials they can find. Because zoning regulations are ignored, this type of housing is usually substandard.[6]

## International Assistance to Cooperative Housing

Recognizing the critical shortage of housing, the international donor agencies have provided extensive financing to the housing sector. As part of this effort, the U.S. Agency for International Development provided grant funding to CHF to provide technical assistance to develop and implement housing programs, with specific emphasis on cooperative housing.[7] The cooperative emphasis was encouraged by the Humphrey Amendment to the Foreign Assistance Act of 1961, and was based on the 10 years of prior CHF experience with housing cooperatives in the United States.

Although most CHF-assisted projects have been financed by AID, a few have been funded by organizations such as the Inter-American Development Bank (IDB) and the United Nations Capital Development Fund (UNCDF). Few donor agencies espouse the cooperative approach to housing, leaving the form of institutions to the decision of the host government. Since government housing authorities often feel they can exercise greater control over the sector if cooperatives are not used, the net result has been a sporadic use of the cooperative form, restricted primarily to projects funded by AID.[8]

CHF works with AID under two different contractual arrangements. In one, CHF carries out a specific task or function requested by the Office of Housing and Urban Development. This work frequently includes the development of shelter sector appraisals or the research and writing of project papers. The other arrangement permits CHF to initiate activities

through funding provided by AID development grants (development program grants, operational program grants, and a current SSG emanating from the PVO/FVA section of AID).

CHF's primary role is to provide technical assistance to plan, develop, and organize low- and medium-cost housing programs. Donors typically provide loans or guarantees for actual capital costs as well as grant-funded technical assistance through a cooperative agreement or contract. Technical assistance may support the organization and implementation of housing projects and feasibility studies for the housing sector. It may also develop training programs and provide advice on policy and the legal aspects of housing.

CHF does not build housing, nor does it contract to do so. Rather, it works through a technical service organization (TSO), which is a local agency that sponsors housing cooperatives or acts as an intermediary or packager of projects. A TSO arranges for land acquisition, financing, and building. On the one hand, a TSO defends the rights and promotes the cause of the cooperative housing movement and its members; on the other, it provides technical, legal, and financial support to the cooperatives it sponsors.

Under the Alliance for Progress, CHF began working in 1962 in Latin America and the Caribbean, where conditions were considered favorable for cooperative activity as a result of higher levels of economic resources and a prior experience with cooperatives. Early attempts at cooperative housing projects in countries such as Colombia, Peru, and Venezuela met with favorable results in terms of unit construction and the formation of individual cooperatives, but were less successful in establishing large-scale, ongoing housing cooperative movements. In both Colombia and Venezuela, spontaneous and TSO-supported cooperative formation in the housing sector has continued -- organizing groups, securing financing, and building houses -- on a modest

scale. The majority of this housing was built for middle-income people in an attempt to assist the housing sector in general, without specifying a target group.[9]

Even prior to the passing of New Directions legislation in the early 1970s, mandating that U.S. foreign assistance focus on the low-income sector, CHF had pioneered attempts at low-cost housing programs in Panama and developed a strategy based on the minimum approach to shelter. Since then, CHF's focus has been to promote the development of low-cost housing in general, with or without a cooperative approach. CHF becomes involved only in projects that require a high degree of group participation, but these need not be organized into formal cooperatives.[10]

Although still involved in field of low-cost shelter, CHF's work is shifting from strictly cooperative housing to home improvement and upgrading programs (Botswana, Egypt, and Haiti), development of building materials and production centers that have a strong employment generation component (Lesotho), and neighborhood improvement cooperatives (a new element to CHF's portfolio).

## Definition of a Housing Cooperative

The term "housing cooperative" may be used to describe several different forms of collective housing activities. At a minimum, a housing cooperative is an association, incorporated in accordance with local legislation, that is owned and democratically controlled by its members to enable them to improve their living conditions.[11] To be considered a cooperative, the association must conform to basic cooperative principles, including open housing policies, non-profit operation, safeguards against speculation, the limitation of one dwelling to a member, and democratic control of the institution with each member having only one vote.[12]

Housing cooperatives may be grouped into four separate categories.

- Limited objective cooperatives, which are organized to perform certain specific services -- such as acquiring and subdividing land, obtaining financing, installing streets and utilities, and even designing and constructing dwellings -- and usually dissolve once those objectives have been met;

- Mutual ownership cooperatives, also known as single mortgage cooperatives, which retain title to the land, dwellings, and facilities and manage the property on behalf of the members, at least until the mortgage is satisfied;

- Multiple mortgage cooperatives, in which the members have individual titles to their dwelling units, but all common properties and facilities are owned and maintained by the cooperative; and

- Tenant cooperatives, common in Eastern Europe and France, where the cooperative owns the building and leases units to its members. The occupants do not have any equity in the cooperative, but may have a voice in management and decision making.[13]

This study is primarily concerned with the two ownership forms of cooperative housing, as these (especially the mutual ownership form) are the typical models promoted in CHF-assisted programs.

Either ownership form may be organized as closed or open cooperatives. A closed housing cooperative is the more traditional form; a number of families join together to construct a finite number of housing units that will be cooperatively owned, at least until the mortgage is amortized. The size of this cooperative is limited by the number of individual house lots, or dwelling units, that make up the cooperative's land. An open cooperative, in contrast, is one in which membership is not limited by the size of a particular project. As the cooperative acquires more land on which to build, new members are admitted. These new cooperative sites may be contiguous, in the same city, or in different parts of a country.

Regardless of the type of cooperative, it may be involved with any one, or all, of the stages of housing development: acquisition of land, installation of infrastructure, provision of building materials, obtaining of financial backing, construction, and maintenance and operation once the housing is completed. Under either type, moreover, the entire construction process may be performed cooperatively or contracted to a builder.

In both types of cooperatives, a committee of the cooperative's board of directors screens potential members to determine whether they are trustworthy, have adequate economic resources, and hold views that are compatible with cooperative principles. Once accepted, these families then agree to buy housing services from the cooperative under automatically renewable lease arrangements. The cooperative, as owner, is then responsible for the repayment of the loan for the housing and for maintenance.

## The Basic Approach to Cooperative Housing

CHF does not follow a standard approach in its work overseas, especially in terms of replicating the housing cooperative experience of the United States. Since CHF is not always involved in the design stages of a program, it frequently does not have the opportunity to recommend one approach over another. Rather, CHF usually provides technical assistance in the field of low-cost housing, under a scope of work whose approach is determined by others.[14]

AID, at present, acts as a financial guarantor for private U.S. loans for housing, rather than as a direct lender of housing construction funds. This Housing Guarantee Program (HG) links U.S. financial institutions with the central financial institutions of developing countries, and facilitates the flow of funds to recipients without requiring a direct AID budget allocation. This mechanism allows a host-government agency (such as housing authority or central mortgage bank) to borrow in the

U.S. financial market, with the loan given a full faith and credit guarantee by AID. These funds are then on-lent to public and private sector groups and organizations to construct housing. The loans carry commercial interest rates averaging just below the U.S. prime rate and a stipulation that the housing be for the poorer 50 percent of a population.

AID and CHF have recently explored other housing delivery mechanisms, including home improvement and upgrading programs, (sometimes through the use of credit unions as in Belize and Jamaica); sites and services programs (where a government agency or private contractor arranges for the land and installs basic infrastructure, leaving the construction of the houses to the owners of the lots, as in Jamaica); and programs that promote the manufacturing and supply of building materials (Lesotho). Several of these non-traditional housing activities have been organized around cooperatives (Belize, Haiti, Lesotho, and Paraguay).

## The Study Sample

All major CHF assisted-projects that contained a cooperative element, and for which data exist, were chosen for the sample of this study. This covers activities in seven countries with the financial support of three donor agencies. Sample selection was to be limited to projects 10 years old or less to focus the sample and obtain more relatively up-to-date information. Since most of these projects were implemented during the 1960s and early 1970s, the sample was expanded to include projects in Chile, Colombia, Guatemala, Panama, Peru, and Venezuela that had taken place earlier. A search of the literature on these projects, however, revealed that many of the documents no longer existed in CHF archives. Consequently, information on the earlier projects is based primarily on the recall of people interviewed, augmented by material available in the literature.

The specific cases concerning ongoing programs included a home improvement project funded by AID/Belize using the credit union movement, a housing self-help construction and upgrading project in Haiti financed by UNCDF and others, a home improvement project using credit unions in Jamaica, a program for cooperative housing and building materials in Lesotho, and a federation of housing cooperatives program in Honduras. In addition, project documents on cooperative and low-cost housing activities in Argentina, Botswana, Chile, Colombia, Egypt, Peru, and Venezuela were reviewed. Wherever possible, interviews were conducted with CHF international staff who had been involved in the actual implementation of projects.

## SUCCESS AND BENEFITS IN COOPERATIVE HOUSING PROJECTS

### Expected Benefits and Results

Proponents of cooperative housing list six major advantages, or benefits, to be obtained through a cooperative approach to housing development: financial advantages or cost savings, mobilization of internal resources and inputs, greater financial responsibility and financial security, safeguards against speculation, better maintenance of value, and a greater improvement in the quality of life of the inhabitants.[15]

Depending on the level of analysis, numerous criteria may be applied to define success in a cooperative housing program. At the level of the individual cooperative, success may be defined in terms of ability to:

- Attract adequate financing;
- Meet the housing requirements of the target population in the country or area;
- Provide housing solutions more efficiently and at less cost than alternative sources;
- Complete housing construction and service mortgages effectively;

- Maintain the value and appearance of the property;
- Sustain the individual housing cooperative as an institution if the continued operation of the cooperative after the mortgage has been fully amortized is planned; and
- Foment other services, activities, and community development.

At the housing federation or TSO level, success may be defined in terms of:

- Self-sufficiency and sustainability of the organization; and
- Ability to generate growth and new cooperative development in the the country.

At the level of the international program, or international housing cooperative movement, success might be measured in terms of:

- An increased flow and level of funding in support of cooperative housing activities; and
- An increase in the number of projects that support cooperative housing development.

## Meeting the Housing Need

Only limited data are available on the significance of cooperatives in reducing the housing deficit in the developing countries. In Venezuela, the Housing Cooperative Federation (INVICA) had been involved in 11 cooperative housing projects that had constructed 1,859 units as of 1975. Of these, three projects that constructed 930 units were financed by AID HG or housing investment guarantee (HG) loans. An additional 5,600 units were in various stages of completion at that time.[16]

In Chile, housing cooperatives have constructed more than 132,000 houses since 1966, which represents 15 percent of all housing built during the period.[17] By 1981, there were approximately 2,000 closed housing cooperatives, two-thirds of which had achieved home ownership for their members, and 10 open housing cooperatives with more than 20,000 members. One HG loan assisted 178 cooperatives to build more than 12,800 units.[18]

In Honduras, the Housing Cooperative Federation (FEHCOVIL) built over 2,200 units through 17 cooperatives in 1969-1982.[19] Cooperative housing activity in Honduras between 1975 and 1981 accounted for 17 percent of the total, and 36 percent of the low-income-oriented housing constructed by the public and formal private sectors in the country during that period.[20]

The ability of cooperative housing to meet a significant portion of the need for low-cost housing depends directly on the level of construction resources that cooperatives can mobilize. Since 1972, the proportion of international donor funds to the housing sector that have supported cooperative projects has declined considerably. Very few, if any, World Bank, United Nations Development Programme (UNDP), IDB, and Asian Development Bank projects include the development of housing cooperatives. The proportion of AID HG funds that are used to finance the development of housing cooperatives has been minimal in recent years. As participants in the Cooperative Advisory Group meetings in June 1984 observed, "If you judge by actions, rather than words, you would have to conclude that the donor agencies have not been very supportive of cooperative housing." As a result, with the possible exceptions of Chile and Honduras, the number of housing cooperatives and members has remained small in the developing countries, and growth in the sector has been slow.

## Financial Advantages

One argument for cooperative housing is that cooperatives can produce housing at a lower cost than public and other private sector sources. These savings accrue from group purchases of land, professional services, building materials, equipment, and construction (for example, economies of scale); non-profit operation of the cooperative; special tax advantages (which are, in fact, transfers rather than reduced costs); and reduced selling, closing, and operating costs.

This is an inherently difficult argument to evaluate: identical houses are seldom built at the same location and point in time by different institutions to permit comparison. Building less expensive houses is not the same as building houses less expensively, and the costs of houses built at different points of time and in different countries cannot be compared because of different inflation rates, cost structures, and prices.

Compared with the projects of other private sector builders, cooperative housing projects offer the following construction cost advantages:

- Economies of scale of building many houses at once versus one at a time;
- The absence of a contractor's profit margin;
- The tax-exempt status provided for in the cooperative laws of many countries (such as Chile, Honduras, Peru, and Venezuela);
- The organizational style of the cooperative, which promotes the contribution of member labor and other self-help activities).[21]

Comparisons between public sector programs and cooperative projects are also difficult to make, and data are scarce. In Honduras during 1976-1981, FEHCOVIL construction averaged $3,776 per unit, compared with an average of $5,382 for the heavily

subsidized public sector programs undertaken by the national housing institute, INVA.[22] In Chile, the cooperative approach to housing has been estimated to result in a 20 percent reduction in the cost of a finished unit as a result of cost efficiencies in construction, reduced selling costs, and lower vacancy rates.[23]

One factor contributing to the lower finished cost of units in cooperative projects is that new units have a lower vacancy rate. In a cooperative project, the occupants of the units are identified and approved in advance, so that occupancy can occur as soon as the units are completed. Public, and even private, sector programs are frequently plagued by extended periods of vacancies while purchasers of completed units are sought and approved. These vacancy costs must be borne by the developers (public or private) and are built into the final sale price of units. The pre-identification of buyers also reduces the actual cost of marketing the units.

## Mobilization of Internal Resources

Housing cooperatives tend to mobilize greater levels of beneficiary savings, other financial resources, labor, and member involvement. Savings mobilization is an important element of the cooperative education process, and cooperative members are required to initiate and maintain a savings program prior to construction. Many housing cooperatives operate in conjunction with credit unions (Belize, Jamaica, and Peru). In doing so, they provide a readily available financial mechanism for a regular savings program directed toward housing. This is one major difference between cooperative and non-cooperative approaches to housing projects: cooperative members have a financial commitment and exposed risk in the project before it is completed. Beneficiaries of other programs do not.

Mutual self-help efforts have also played a significant role in cooperative housing programs. These efforts have reduced the cash cost of construction and built member commitment to the effort.

## Increased Financial Responsibility and Security

Housing cooperatives generally have better repayment rates than non-cooperative public sector, low-income projects in developing countries. In Chile, for example, the cooperatives had delinquency rates below 5 percent, compared with 40 percent in most of the public sector programs.[24] In the Jamaican experience, the default rate in the cooperative housing program was 1 percent, whereas that of a comparable government program was 38 percent.[25] Similar differences have also been noted in Guatemala, Honduras, and Panama.[26]

The mere existence of a cooperative, however, does not automatically ensure a low delinquency rate. In the only study that specifically commented on delinquency rates, 73 percent of the members of Nuevo Chorillo housing cooperative in Panama had arrearages, with an average duration of 4 months in 1981. The cooperative itself had fallen behind in repayments to the national housing bank, partially because cooperative management had decided to use member subloan repayments to begin new constructions in the project rather than repaying existing loan obligations.[27] As in any other type of enterprise, good management is essential to good performance.

## The Availability of Supplementary Loan Funds

In low-cost housing, construction is often performed incrementally; first the land is obtained, infrastructure is put in place, walls are built, and a shell house is completed; then additions and improvements are added. A housing cooperative, working like a credit union, is equipped to finance this type of

incremental construction, whereas a government housing agency or a private contractor is not (Haiti, Honduras, Jamaica, and Panama).

## The Organized Provision of Infrastructure

The informal private sector constructs the vast majority of housing. Often this housing results from an immediate need and is built without considering the need for roads, water, electricity, sewerage, and other infrastructure. Their eventual provision then becomes far more costly. A housing cooperative has the potential to organize people needing housing to plan systematically for these infrastructure needs (Haiti, Jamaica, and Lesotho).

## The Role of Legal Status

An adequate cooperative law normally contains provisions whereby cooperatives can meet specified requirements and obtain legal status. This status allows the members to undertake collective action in the name of the cooperative. Equally important, however, it allows members access to particular resources. These include government financial incentives (tax exempt status), technical assistance (national and international), and financial support. It is in this last category that housing cooperatives provide special benefits to their members. By having legal status, cooperatives can obtain credit from either governmental or donor programs. The assets of the cooperative, most likely the houses to be built, serve as collateral for the loan.

## Ability to Carry Out Additional Development Activities

Once an organization has been established and has succeeded at a particular activity, its energies can be channeled into complementary activities. This is the case with housing cooperatives. TSOs in several countries (Honduras and Lesotho)

have been instrumental in infrastructure-upgrading projects, building material manufacturing, and community improvement programs.

## PROBLEMS ENCOUNTERED AND LESSONS LEARNED

In considering the factors affecting the success or failure of cooperative housing programs, one deals with three separate levels of issues: those relating to individual housing cooperatives, those relating to sub-national or national level federations and TSOs, and those relating to the position of cooperatives in the housing sector itself. These issues are obviously interrelated, but analyzing them separately will help to clarify some broader issues confronting cooperative housing programs in the developing world.

### Factors Affecting the Success of Individual Housing Cooperatives

#### The Social, Political, and Economic Environment

Housing cooperatives, like all other cooperatives, require certain conditions if they are to provide benefits to members in a sustainable manner. These conditions normally ensure success; their absence most often ensures failure. As income levels of potential beneficiaries decline, these conditions assume increased importance.

#### A Supportive Government Attitude toward Cooperatives

Government plays an important role in determining the eventual success or viability of housing cooperatives in a country. Government policies create the economic and financial framework within which all housing institutions operate. Government provides the enabling legislation that permits cooperatives to be formed and operate, bears the foreign exchange risk in international loans, and establishes the subsidy systems

related to income sectors.[28] Since a government's policies can affect cooperative activity, it is essential that these policies support, or at least permit, cooperatives to carry out their functions. In a hostile environment, cooperatives simply cannot be expected to survive.

In some countries, the government supported cooperative housing at the start of a program, but withdrew support once work had started. This happened shortly after the beginning of projects in Haiti and Lesotho, and after many years of successful activities in Chile and Peru. In these cases, either government policies or key personalities in the government changed, and the cooperatives found themselves without support.[29] The Velasco regime in Peru attempted to co-opt the cooperative movement for political reasons because it was not socially oriented enough.[30] In Chile, Allende withdrew all support to cooperative housing, and the Pinochet government cut the access of Savings and Loan Associations (SINAP) to funds in an effort to promote the private sector, calling housing cooperatives and savings and loan associations special interests.[31] However, FEHCOVIL, in Honduras, has benefited from positive government support throughout its history.[32]

An adequate law on cooperatives not only provides a framework within which they can operate with relative security, but it also mandates certain services to be provided by the public sector, such as access to financing and land, tax exemption, technical support, and reduced bureaucratic requirements. An adequate law can also insulate a cooperative movement from governmental changes in policies. Lesotho and Haiti were countries in the study sample in which the lack of an adequate law governing housing cooperatives adversely affected their establishment.[33]

## The Existence of a Technical Service Organization

A TSO is normally an independent body that stands between the government and the housing cooperatives of a particular country. As its primary task, a TSO provides technical support to all phases of cooperative activity, including governmental policies and laws, cooperative organization and administration, and housing design and construction. In addition, it lobbies in favor of housing cooperatives to the government and the donors. It also often serves as a recipient of external funds and an actual contractor in the building of housing. The existence of this type of organization, which nurtures and promotes activities in the housing field, is essential if additional housing cooperatives are to be formed beyond the immediate project.[34] Indeed, the main thrust of CHF activity in any housing program is to provide assistance to establish a viable and sustainable TSO.

## Adequate Financing

Access to adequate financing is critical to the success of a housing cooperative. The consequences of inadequate financing were well described by several regional housing and urban development officers (RHUDOs):[35]

> One typical approach is that the families will pool their resources and purchase a portion or all of the land for the project. They then typically name the site or project after some important government official and approach that official for some financial support. At the same time they begin to build a number of houses . . . there will be a revolving income fund to continue the construction plans. In reality what happens is that two or three houses are built and three or four more started and the funds run out. The amount of monthly payments coming in is inadequate to maintain the payments on the land and nothing further happens.
>
> The problem with cooperative housing projects in general in my mind is the same as demonstration housing projects. Both are based on building a limited number of units using some magic source of funds which is never enough to make a meaningful impact or be effective.

These comments indicate that housing cooperatives, to be successful, must be tied into a financing system that has sufficient resources or the capacity to mobilize additional financial resources, so that sufficient funds to finance housing can be made available.

### Delinquency Control

Cooperative housing projects have traditionally experienced lower default rates than public sector programs. Several factors appear to account for this success. The majority of housing cooperative members are screened according to such eligibility criteria as credit worthiness and stable income. The initial savings commitment of members establishes a pattern of financial contribution to the project and a commitment to its success. Cooperatives, in general, place great emphasis in their education programs on the importance of repayment in terms of maintaining credit rating and supporting the rest of the membership. Pressure from other members to repay cooperative debts is strong. The creation and maintenance of reserves also contribute to the lower delinquency rates.[36]

### Reserves

Bad debt and emergency reserves are critical to the sustainability of a housing cooperative. The bad debt reserve ensures that an entire cooperative will not default on its loan because of a few non-paying members. Emergency reserves ensure that the cooperative can meet special contingencies or carry a member who is in temporary financial difficulties, without endangering the cooperative's financial position. The existence of these reserves is standard accounting practice for housing cooperatives and aids in their overall financial viability and success. The mere existence of these reserves does not guarantee

repayment; the audit of the Nuevo Chorillo housing cooperative indicated that the reserve fund was inadequate to cover the cooperative's arrears of $850,000.[37]

## Pricing Policies

The price charged for a cooperatively built dwelling can have a long-term effect on the sustainability of a housing cooperative movement. Although most cooperative housing is built without direct subsidies, governments and some donor programs tend to subsidize actual building costs in an attempt to reach the poorer segments of society. This situation often leads the housing recipients to cash out their equity by selling their houses at market value and moving on (Haiti).[38]

As a result, CHF strongly advocates that the purchase price reflect the full value of a house. The size and quality should be adjusted downward to meet the beneficiary's ability to pay. The cooperative approach offers a distinct advantage in this area since most housing cooperatives retain title to the dwellings until they are paid for. Normally, the by-laws of the cooperative will contain some constraints or limitation on the resale for profit of the cooperative dwelling unit.

## Membership Involvement

As in many types of organization, membership involvement in the daily activities of the cooperative changes as the organization matures. In the initial, organization phase, member participation tends to be high. Once the service (housing) is delivered, active participation declines.[39] With the exception of some cooperatives that have begun complementary activities, the cooperative becomes a mortgage administrator and collector of payments. In other words, the issue of membership involvement

becomes moot from the standpoint of the vast majority of individual cooperative members, and many cooperatives cease to function when the mortgage is fully paid off.

In the Nuevo Chorillo cooperative in Panama, members organized independently of the cooperative structure to protest the lack of services promised in the original plan and to petition for a meeting of the general assembly, which cooperative management had not convened for more than three years. Member involvement was successful in pressuring management to develop a health center, open local food stores, and establish a formal channel for airing grievances.[40]

### Pre-screening of Members

In some cooperative projects, the housing cooperatives screen or pre-select their members. This practice enables them to choose potential members who will meet their financial obligations to the cooperative and add to the cohesion of the group. Although this practice appears to have contributed to the success of cooperatives in Honduras and Jamaica,[41] it does not seem to have made a difference in Haiti or Lesotho.[42]

## Factors Affecting the Success of Federations and Technical Service Organizations

### Adequate Volume of Activity

A federation or TSO derives its income from the services it provides to member cooperatives, either in the form of margins on new construction or fees for services and dues. A substantial volume of new construction is necessary to support adequately this type of institution. In Jamaica, Mutual Housing Services estimates that it must construct more than 200 houses a year to maintain a full staff, yet construction has averaged only 19 houses a year during the past 15 years.[43] In Chile, the open housing cooperative and technical service organization

(HABITACOOP) manages 2,000 housing units, and needs to construct an average of 500 houses per year to support the 70 staff members of the TSO.[44] One major problem encountered by TSOs in recent years has been their inability to generate a sufficient volume of new construction to sustain the organizations.

### A Source of Adequate and Continuous Financing

Financing is critical to generating a sufficient volume of activities. The per-unit costs of providing shelter are high and are repaid over long period. As a result, housing construction requires a source for large amounts of long-term financing.

Rarely does a TSO, government, or donor agency have sufficient funds to finance housing programs continually. Financing is obtained for a specific program or project, the houses are built, the mortgages are paid off, and the capital returns to the original lender (this is the basic HG type financing). The necessity to repay the lender, plus the small margins that a TSO might earn on a loan, precludes the establishment of a revolving fund to support the continued promotion of new projects.[45] Each time a new building program is to start, new financing must be arranged. Although this is normal in the construction of any large housing project, it causes a special problem because donors are not always ready, or favorably disposed, to receive the requests.

This was the case in Honduras with FEHCOVIL. By the early 1970s, the housing cooperative movement had been established and functioned well with the help of CHF technical assistance and AID financing. By the mid-1970s, however, AID decided that it could not deal effectively with small projects, but wanted to have a greater impact on government policies and programs. AID moved all of its funds through the government's public housing sector. This effectively precluded FEHCOVIL's access to HG funds, causing a temporary, but drastic, decline in the federation's activities

until other donors and financial institutions took up the slack.[46] The ability to appeal to a diverse group of donors (in this case, the Central American Bank for Economic Integration and CARE) greatly aided FEHCOVIL's sustainability.

The cooperative movements of developing countries need to diversify their sources of funding. These sources should include monies made available from member cooperatives, the local government, private financial institutions, and several donors.

## Factors Affecting Sustainability

Sustainability is an important goal of development projects, especially in cases in which organizations are created and institutions strengthened. For this study, "sustainability" is defined as an organization's long-term ability to provide continuing services to members without incurring a dependency on outside sources for subsidized goods and services.

As a result of the high financial requirements of building shelter, cooperative housing movements, like other housing development alternatives, will always depend on loan financing for actual construction costs; very few, if any, cooperatives can generate sufficient internal resources from member savings and deposits to cover more than 10-20 percent of the cost of construction. In practice, this means that local, national, or international funds are necessary to finance actual construction. The cooperative or TSO acts as a broker to secure funding. Donors, government agencies, or local financial institutions will continue to provide access to capital resources, regardless of sustainability as measured in other terms. This would not normally be a concern if the borrowing organization (a cooperative, TSO, or housing authority) can absorb the full costs of this capital over the long run. If these costs are subsidized, however, a dependency may be created that will gradually erode the sustainability of the organization.[47]

For the TSO, the organization charged with the promotion, sustenance, and support of housing cooperatives in a given country, its activities must be sustained if a movement is to prosper. The issue of sustainability is critical. CHF normally considers the formation, strengthening, and support of a country's TSO to be the most important element in its technical assistance efforts. Nevertheless, it appears that TSOs are a fragile element in the cooperative movement and have not generally become sustainable. Although numerous individual housing cooperatives have obtained affordable dwellings and therefore become successful, TSOs in developing countries have had difficulty generating a sufficient volume of business and fomenting new projects.

FEHCOVIL in Honduras has done well, building over 2,200 housing units with 18 cooperatives over 15 years.[48] INVICA in Venezuela also attained sustainability, establishing 17 cooperatives and constructing over 1,800 units by 1975.[49]

Nevertheless, Chile's previously successful and sustainable SINAP, which had been a financial conduit for the construction of 140,000 dwelling units in 14 years -- one-third of which were cooperatively organized -- lost its source of funds in 1980 when the government decided to channel all housing monies through commercial banks and other financial institutions.[50] With this new policy, the cooperative housing movement in Chile lost its most important source of financing. The Peruvian cooperative housing finance organization (ASINCOOP), which built 4,000 houses between 1965 and 1975, has become stagnant as a result in large part of interest rates in excess of 50 percent and has had to reorder its loan portfolio toward commercial transactions, vehicle financing, and home furnishings.[51]

Mix of Member Income Levels

There appears to be a direct relationship between the success of a housing cooperative and the economic level of its members, whether they are individuals who belong to a cooperative or cooperatives that belong to a federation. It is easier to work with people with higher resource and education levels. It is also easier to initiate a cooperative movement with members of higher income and educational resources.

This finding does not argue against attempts at reaching the poorest of the poor. Instead, it suggests that TSOs should diversify their portfolio of activities. The federations and TSOs should continue to work with low income groups when funding is available to do so, but not depend on subsidized funding as a sole source of financing for their programs. By serving middle income families, TSOs can tie into private and non-subsidized public funding sources and maintain viability during periods when subsidized funding is not available.

Strong Effective Leadership

Developing organizations often depend on strong, effective leadership, and housing cooperatives are no different. For example, in the early 1960s the Honduran housing cooperative movement benefited from this type of leadership. This factor is often cited in explaining FEHCOVIL's success. An early leader of this TSO is now the first deputy speaker of the Honduran Congress and is reputed to be next in line for the presidency of the country. He is also one main reason for the governmental attitude favoring cooperatives.[52]

Strong, capable leadership was also cited in the case of the directors of the Venezuelan movement:

> Its tightly-knit board of directors is extremely responsive to the changing situations faced by INVICA . . . . INVICA's directors are eminently qualified in this area, having, as they do, extensive experience in the world of cooperatives, the field of housing, and in business matters in general.[53]

As in any small organization, dependency on one, or a few, leaders can also lead to problems. When FEHCOVIL's president stepped down in the early 1980s, the organization temporarily faltered.[54]

## Factors Influencing the Position of Cooperatives in the Housing Sector

Given the apparent benefits of cooperative housing programs, one might wonder why there are not more housing cooperatives in developing countries, why there are so few cooperative components among internationally assisted housing programs, and why the sector has grown so slowly. There appear to be seven major reasons: nature of donor funding, government-to-government loans, shift in donor priorities, financial requirements, incompatability with social values, adapting to a changing environment, and absense of an agressive local institution. Each is discussed below.

### Nature of Donor Funding

Of the major international donor agencies that fund housing programs (World Bank, UNDP, and AID), the cooperative movement as a whole has demonstrated an ability to generate regular and large-scale funding from only one -- AID. The other organizations seldom fund cooperative development programs.

Since 1962, when CHF began working in international cooperative housing activities, AID funding of housing programs has changed dramatically. Until the late 1960s, AID funding for housing programs was primarily a mission-level activity. In this

environment, CHF was relatively successful in developing support for new projects. In fact, 80 percent of all CHF country-level contracts through 1980 were signed before 1970.[55]

AID's funding mechanism for international housing assistance changed in the late 1960s to the housing investment guarantee mechanism (HG), under which AID no longer provided direct funding for housing programs, but guaranteed loans provided by U.S. banks and other institutions. The scale of the program increased dramatically, from less than $200 million in 1968 to more than $1.2 billion in 1972.[56] The new program was highly centralized in Washington, with regional rather than mission-level offices.

In this new environment, the central objective became to move large amounts of funds and build houses quickly. A cooperative, although offering greater long-term benefits (including lower costs, greater savings mobilization, and fewer delinquencies), often takes longer to develop and involves a greater commitment in terms of support activities. The initial organization of the cooperative, the legalization process, the training of members and leaders, and the technical assistance are often seen as requiring more time and effort than the scale and direction of the program could support. As one RHUDO responded to a questionnaire:

> From AID and the World Bank's standpoint, working with the public sector takes 3 to 5 years of institution and policy building to implement a project. To also try to support and develop a cooperative organization is beyond, at times, our resources and patience. As you know, the support AID gave to . . . [cooperative housing] . . . did not result in many houses being constructed. They, unfortunately, were more interested in working with the cooperative movement and getting a few pilot cooperative houses constructed.[57]

## Government-to-Government Loans

The fact that donor agencies lend funds to governments also restricts cooperatives' access to funds. The majority of donors (World Bank, United Nations, and AID) deal exclusively with government institutions and have delegated the decision on the delivery mechanism to the host governments.[58] Most developing country governments have a housing authority with a mandate to plan, administer, and often construct shelter for the population. These functions compete with the private sector (of which cooperative housing is a part) for scarce internal and external resources.[59]

Compounding the problem is that housing tends to be a highly politicized issue. Government housing ministries want to control the use of those funds, the construction of the dwelling units, and the patronage that results from distributing completed units. There is little incentive to share these with private groups. The lending organizations tend to work with those institutions the government presents to them, and seldom include cooperatives.[60]

## Shift in Donor Priorities

The original housing cooperative movements that were successful tended to include middle-level income earners and be organized around the workplace. In the late 1960s and early 1970s, AID, which had been the principal supporter of cooperative housing, altered its target group focus under the New Directions mandate. Instead of working with middle-income people with greater resources and education, the target group was now specified to be a group that was less able to help itself.

Some cooperatives were successful, based on their past experience, credibility, and the capital assets gained from their middle-income housing activities. In other words, a viable base

was established in dealing with the middle class that allowed these movements to enter into the field of low-cost housing.[61] But in many instances, the channeling of housing funds to cooperatives composed of only low-income members, and to TSOs to support only low-cost housing cooperatives, was a mistake.[62] As this fact became evident -- low-income housing cooperatives were not achieving the same success rates as middle-income ones -- the cooperative approach lost favor.[63]

Financial Requirements

The implicit and explicit assumptions of the cooperative housing movement -- that pricing and interest rate subsidies are required for low-income housing cooperatives -- have had the effect of positioning cooperative housing organizations in a financial market that has little funding. AID's shift to the HG program effectively ended concessionary, subsidized interest rates from the only source that had regularly supported cooperative housing in the past.

Even at the Cooperative Advisory Group meetings in June 1984, representatives of the cooperative housing sector reiterated the absolute necessity of subsidies and subsidized interest rates. As long as cooperatives depend on concessionary loan terms, they are confined to a limited financial market: they cannot tap into private financial markets; international donor funds are not made at concessionary rates; and host governments, if they do absorb interest rate losses, are more likely to do so for their own programs than to benefit private groups.

Some recent cooperative housing projects have begun to adjust to this funding by incorporating market rate financing. The Chilean HABITACOOP has presented a cooperative housing proposal at market rates. INVICA contained market rate financing components. A large cooperative housing program in India will use HG funding at market rates, as will a recently initiated

program in Kenya. Where the local movement is strong enough to use market rate funding, cooperative housing programs are beginning to have access to greater funding possibilities.

### Incompatibility with Social Values

There is a real question about whether cooperative ownership of housing is acceptable to the population of the developing world. Objections to the joint ownership provision in Latin America led to by-law constraints that conveyed individual titles when the mortgages were satisfied and condominium types of arrangements with individual titles to the dwelling units.[64] One RHUDO officer in Africa observed:

> Housing cooperatives are not indigenous to Africa . . . . The idea of cooperative ownership of one's house with a group of other people is not a typically African way of doing things. While one does find cooperation in building houses in raising money and even in purchasing materials, th final product, the house, is individually owned. Perhaps systems of mutual assistance would find a better receptivity in Africa.[65]

### Adapting to a Changing Environment

Another reason why the cooperative housing sector has not grown more rapidly perhaps explains the previous points:

> Housing cooperatives suffer from leadership that is not terribly aggressive or responsive to change . . . [they] still promote the same ideas they had ten and twenty years ago. Just as in the case of the S&L system, new responses to problems need to be developed . . . . One of their principal limiting factors is that cooperatives view themselves as social rather than economic institutions. They operate at the margin of the financial world and its realities. As the world economy has been affected by rapidly escalating interest rates and scarcity of resources, cooperatives have had problems in adjusting.[66]

### Absence of an Aggressive Local Institution

The lack of an agressive local institution -- an open cooperative, TSO, or federation -- to promote cooperative housing projects and arrange financing has also been a major constraint to the expansion of the cooperative housing movement in developing countries. Where these institutions have existed, the sector have shown positive growth; where they have not, growth has been minimal and the existing institutions have not been successful in obtaining access to new funds.

These seven issues point to a need for the cooperative housing movement to reconsider the nature of the financial and bureaucratic environment in which it operates, and to adopt a set of strategies that are more consistent with that environment.

## RECOMMENDED FUTURE ACTIONS AND GUIDELINES FOR FUTURE COOPERATIVE DEVELOPMENT

### Diversified and More Stable Sources of Funding

The fundamental issue for housing cooperatives is that, if they are to make a significant contribution to meeting the housing need of low-income families in developing countries, they must have an access to continuous long-term funding. This can be expressed in terms of either securing a larger share of the funds currently available for housing, or developing new sources of funding.

Growth in the cooperative housing sector has been severely limited because of the dependency of the cooperative housing movement on low-cost, subsidized financing. The availability of this type of funding for housing has decreased during the past few years. In addition, there are natural tendencies in the government-to-government nature of international lending for the housing sector that favor direct government construction of houses as opposed to cooperative and other private sector

approaches. It is therefore unlikely that substantial increases in funding for cooperative programs will occur in the foreseeable future. As long as cooperative housing is dependent on these sources of funding, the movement will remain stagnant.

Within current donor programs, there are possibilities for an expanded role for cooperatives. One example is the housing program in Honduras, which has experimented with turnkey solutions. In these cases, the developer has a great deal of latitude in project design, implementation, and marketing. These programs, if extended to other countries, would give the cooperative housing sector a better opportunity to access existing funds for local project development. CHF should advocate an increasing use of this technique in AID-sponsored housing programs.

To the greatest extent possible, cooperative housing should seek to generate a steady flow of funding from numerous sources, including public and private banks, guaranty funds, cooperative insurance investments, and internal savings programs. The ability to tap these markets may require modifications in previous assumptions regarding subsidies and acceptable interest rates.

## Continuity of Donor Support

Donor commitment is all too often limited to project-level activities to be carried out in relatively short time frames. Once these activities are accomplished in quantitative terms (houses built and cooperative leaders trained), projects normally end and the donors fund other development activities. In other cases, projects are considered failures and are not extended when they do not achieve expected goals in an unreasonably short time. In addition, bureaucratic procedures and policies also delay and confuse donor continuity in project support. Donors should be more realistic in their estimation of project benefit streams and in their assessment of the accomplishment of goals.

## Related Cooperative Support Activities

Several projects illustrate the need for increased training and education budgets in programs that develop housing cooperatives (Haiti, Jamaica, and Lesotho). These programs often require drastic changes in the way that people do things. Merely to establish a housing cooperative and to provide financing for the construction of the houses are not enough. Funds and time must be allocated to train and educate cooperative members and leaders. These elements should become part of all programs to develop housing cooperatives. Similarly, the training and educational components of a program should be expanded to include field visits to appropriate countries in which successful cooperative experiences can be demonstrated, such as in Honduras.

### The Use of Credit Unions

Given the positive results of the Jamaican housing experience with credit unions, and the potential for this type of activity in Belize, credit unions should be considered by donors in addressing the problems of housing. In many countries, the credit union movement is often more experienced, successful, and pervasive than any other type of cooperative. Furthermore, worldwide borrowing by credit union members for home improvement and construction loans averages 15-25 percent of loan portfolios.[67] Thus, credit unions are already involved housing and could therefore serve as an alternative to establishing another cooperative movement solution for home improvement loans and urban upgrading.

Nonetheless, the credit union is not an ideal mechanism for long-term housing finance. Credit unions are primarily oriented toward short-term unsecured financing. Participants in the 1984 Cooperative Advisory Group meetings pointed out that savings deposited in a credit union cannot be used to finance construction until the member withdraws those funds and uses them

as a down payment. Funds deposited in a specialized home savings bank may be used to begin construction even before the members have saved the necessary down payments.

### Housing Gurantee Program Loans and Spread

The HG mechanism has proved to be efficient in providing capital to housing programs in the developing world. It has one flaw, however, which has caused difficulties for its recipients. Since HG funds are obtained on the open financial market, the interest rates charged reflect those of the market (normally one point under prime). When these commercial rates are finally translated into what the final borrower must pay, they are often high. And they increase more as a result of the added percentages that each intermediary organization must charge (U.S. financial institutions, the central bank, the local housing bank, the TSO, and the cooperative) to cover its management costs.

### The Institutionalization of Leadership

Strong, effective leadership is recognized by many to be a critical element in cooperative success. Nevertheless, leadership often depends on one or a few leaders. When these leaders leave their positions, the cooperatives often fail. It is therefore extremely important for cooperatives, TSOs, and donors alike to devise mechanisms that devolve leadership to a broader base of a group's membership. Leadership training, limited terms in office, and making leaders aware of the problem would help solve this problem.

## The Gestation Period of a Cooperative Movement

In many development activities, a classical paradox often appears. In the short run, it is far easier to accomplish the goals of a project if its activities are performed by an expatriate or other outside agent. Yet in terms of sustainable development, it is better to train and support local people so

that they accomplish the project's goals. In the first case, short-term goals are met that are often not sustained; in the second case, sustainable results are more likely, albeit over a far longer time frame.

For government planners faced with a housing shortage, it is easier to obtain external financing and build shelter as a government project than to organize a housing cooperative movement to build the shelter. Planners and other government officials must be made aware of the tradeoffs between short- and long-term benefits of the various delivery approaches. To this end, the role of a TSO as lobbyist and promoter of the cooperative approach is critical.

# ANNEX A

## NEED FOR ADDITIONAL DATA ON HOUSING COOPERATIVES

Research studies on development activities in the Third World are generally difficult to carry out, and this study was no exception. Although cooperative housing programs have received millions of dollars in donor investments for more than 20 years, the results, impact, and actual benefits of those projects are not well documented. The literature consists primarily of pre-project documents (project papers, loan agreements, and scopes of work) that discuss only the expected outcomes, or end-of-trip reports that summarize the accomplishments of a technical adviser. Other reports address the issue of CHF involvement in low-cost housing programs, but rarely analyze the cooperative element. Cross-country comparisons of attempts at housing cooperatives apparently do not exist.

CHF representatives report that their contracts and grants have contained neither the required time nor the money to carry out these evaluations or analyses. For country-specific contracts, CHF is hired to fulfill a scope of work; only enough time and money are provided for that particular task. Although the institutional support grant allows CHF to market its potential services to AID missions, host governments, and other donors, it contains almost no provision for self-evaluation and analysis of past experiences.

If AID and other donors plan to continue using the cooperative approach to promote low-cost housing, more information on housing cooperatives must be collected and analyzed. This information should include their advantages and disadvantages, the necessary preconditions for their success, the differing approaches according to different target populations, and alternative means of financing.

The specific data that are required to answer the questions posed in the terms of reference for this study, and that could be built into a data base, include:

- An inventory of CHF-assisted projects with number of units, date built, and average cost per unit (divided by type of unit);
- An inventory of other cooperative housing efforts, including the same data as above;
- Data on comparable government-sponsored housing programs, including number, cost, date built, and delinquency rates;
- Basic housing data for each country;
- Financial statements of various TSOs;
- Information on the fate of all CHF-assisted cooperative programs and any other cooperatives for which data could be found;
- Basic data or delinquency rates in each cooperative; and
- Analysis of subsidies in various programs.

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# CHAPTER FOUR

# RURAL ELECTRIC COOPERATIVES

## INTRODUCTION

Electric power is an essential component of large-scale economic development. As a result, the development and provision of electric power are a high priority in the development strategies of every Third World country. Approximately 25-30 percent of total World Bank loans during the past decade have funded electric power projects. Numerous other donor agencies (including the Asian Development Bank; Inter-American Development Bank [IDB]; Kuwait Fund for Arab Development; Organization for Economic Cooperation and Development [OECD]; U.S. Agency for International Development; and the Japanese, Finnish, and Danish governments) support electrification efforts in developing countries. The amount of funding for the sector (both absolute and relative) has increased in recent years, as has the percentage of those funds that support rural electrification.[1]

Although decision makers agree on the need for electrification, they often disagree on how it can best be provided. Issues in the current debate include when and where in the development process electrification should be introduced, whether it should be centralized or decentralized, what should be the appropriate delivery mechanism, who will receive the benefits of electrification, and how it will be paid for.

Providing electric power in a developing country involves a special relationship among three institutions: the government, electric utilities, and local distribution and administrative organizations. Because power generation is a capital-intensive enterprise requiring large financial resources, it is usually provided by a central electric utility (public, private, or parastatal) constructed with government funds supplied by international lenders. These are large-scale business enterprises

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mission lines to local distribution centers. The local distribution systems may be organized as cooperatives, private businesses, branches of the electric utility, municipal departments, or other forms of local institutions. In some cases, the function of the local administrative unit may be limited to billing, arranging customer connections, and reporting problems. In other cases, it may be more substantial, including promoting and extending service, applying credit, billing, keeping records, providing local engineering, constructing and maintaining works, and looking after accounts.[2]

## International Support for Cooperative Rural Electrification

Support for developing rural electric cooperatives in the Third World is a result of the impact of rural electrification efforts in the United States during the 1930s. Because of the success of the Rural Electrification Administration (REA) and its affiliated private sector cooperatives, U.S. farming became more productive, rural employment was stimulated because of the increase in rural industrial activity, and the quality of life was vastly improved. Given the highly visible success of the U.S. movement, it seemed logical to attempt to replicate this experience in the developing world.[3]

During the 20-year period ending in 1981, AID financed 30 rural electrification projects in 16 countries for a total of $529.5 millon. During the 10 years ending in 1981, other donors financed 42 projects in 23 countries for a total of $546.2 million. The World Bank is the major fir[illegible]er of energy-related projects.[4] A majority of projects [illegible]d by AID in rural electrification have included cooperati[illegible] Although the percentage of projects based on a cooperative approach was high in the 1960s and early 1970s, it has declined in recent years.

The other major international donors respond to bankable projects requested by their member countries. Cooperatives would be supported if a country included a cooperative approach in a feasible request for a rural electrification loan.[5] In Bangladesh, these organizations are involved in a joint project based on cooperatives. In the Philippines, the Asian Development Bank and World Bank provide ongoing funding to rural electric cooperatives initiated during an AID project. The World Bank is completing a worldwide study on the impact of rural electrification and plans to follow it up with a study of delivery mechanisms, including cooperatives.[6]

The National Rural Electric Cooperative Association (NRECA), which played a key role in the electrification of the rural United States in the 1930s, has been AID's major source of technical expertise in program design, organization, and administration of rural electrification projects. Project implementation, however, usually involves joint ventures between the NRECA and one or more private engineering firms.[7]

Prior to 1961, NRECA and several of its member cooperatives provided technical assistance to Latin American electric cooperatives, although not under an official program. With the Alliance For Progress and the Humphrey Amendment to the Foreign Assistance Act of 1961, NRECA received greatly expanded financing and a mandate to promote rural electrification through cooperatives. During the 1960s, NRECA provided technical assistance to AID missions and host governments to establish rural electric cooperatives in Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, and Nicaragua.

In subsequent years, AID-financed NRECA services assisted in establishing rural electric cooperatives in Bangladesh, India, Indonesia, the Philippines, and Vietnam. NRECA also provided

other types of technical assistance and studies dealing with the energy sector and secondary electrical distribution systems in Korea, Laos, Morocco, Sierra Leone, and Thailand.

No cooperative rural electrification projects have been carried out in Africa or the Middle East (a project, recently approved in Shaba Region, Zaire, will be the first in Africa). The level of economic development in many of these countries is not considered high enough to justify large rural electrification systems. NRECA's International Programs Division has provided assistance to non-cooperative rural electrification projects in the Yemen Arab Republic and Egypt.

Few developing country governments have chosen a large-scale cooperative approach to rural electrification in the absence of AID financing and NRECA technical assistance. Argentina, with 650 rural electric cooperatives, and Brazil, with 185, are exceptions. A number of private, individual cooperatives that have received no donor assistance or outside support include 3 cooperatives in Haiti, about 20 on the West Bank of the Jordan River, and a undetermined number in Indonesia.

## Forms of Rural Electric Cooperatives

Rural electric cooperatives may take one of several forms: they may be power generation cooperatives, transmission cooperatives, distribution cooperatives, or a combination of these three forms. At the same time, a cooperative may be on-grid, which means that it is one distribution point of a regional or national power network, or off-grid, or not linked to a broader network. The vast majority of rural electric cooperatives in the developing world are organized as distribution cooperatives, purchasing power from private or public power sources at wholesale, and retailing it to their members. As distribution cooperatives, most are also on-grid.

Major exceptions to this model include three of the outer islands of Indonesia and the West Bank of the Jordan River, where cooperatives generate power as well as distribute it. In the Philippines and other countries, cooperatives have started as off-grid generation and transmission cooperatives, using diesel generators to provide electricity to their members. Later, when the national power networks were extended, most of these cooperatives stopped generating their own power and became part of the national grid.

## The Basic Approach to Cooperative Rural Electrification

The basic approach to rural electrification has changed since the early days of the Alliance for Progress. Projects in Colombia, Ecuador, Peru, and Venezuela were designed as pilot projects. Individual cooperatives were established and supported, but no attempt was made to develop national movements or establish networks of rural electric cooperatives. The philosophy of AID support to rural electrification projects at the time was that AID should fund pilot projects to demonstrate the feasibility and advantages of the cooperative approach, but that IDB, the World Bank, and other donors would provide follow-on large-scale funding for major rural electrification efforts. Later projects have involved the dual approach of developing central power administrations as well as networks of local cooperatives.

The basic rural electric cooperative model combines a central regulatory power authority patterned after REA, a network of private, decentralized rural electric cooperatives, and a source of long-term, concessionary financing. In developing countries, the model generally but not always excludes generating capacity and deals simply with the cooperative as a delivery mechanism. Actual power generation is normally left to the government.[3] The Philippines project (which is now more than 15 years old and served as a model for the pilot cooperatives in

Indonesia) and the entire program in Bangladesh, are similar to the U.S. model, except for the strongly centralized state authority in these countries.[9]

The technical engineering model, which NRECA designs in its developing country programs, is based on U.S. REA requirements that equipment should last at least until its cost can be depreciated. Although at times initially more expensive than other alternatives, the equipment will last longer and over the long term be substantially less expensive.[10] The initial cost of construction is of concern to developing countries because rural electric cooperatives serve populations where operating revenues are generally low and the chances of profit reduced.

## Sample for the Study

NRECA has assisted in the establishment and development of approximately 225 rural electric cooperatives in 14 developing countries (see Table 10). Additional rural electric cooperatives are found in Argentina, Bolivia, Brazil, Haiti, Indonesia, and the West Bank of the Jordan River. This study focuses primarily on cooperatives that have been supported with U.S. assistance funds.

NRECA was asked to pre-select a sample of projects representing a variety of experiences -- both successful and unsuccessful -- for detailed examination and comparison. The 15 projects selected were:

TABLE 10

SUMMARY OF WORLDWIDE RURAL ELECTRIC COOPERATIVES
(as of February 1, 1983)

| Country | Number of Cooperatives | No. of Meters Served | No. of Consumers[a] |
|---|---|---|---|
| NRECA-assisted | | | |
| N.E. Brazil | 12 | 13,000 | 84,500 |
| Chile | 14 | 22,000 | 143,000 |
| Colombia | 1 | 14,000 | 91,000 |
| Costa Rica | 4 | 35,000 | 227,500 |
| Bolivia | 5 | 85,000 | 552,500 |
| Ecuador | 1 | 11,000 | 71,500 |
| Nicaragua | 5 | 42,000 | 273,000 |
| Peru | 1 | 13,000 | 84,500 |
| Venezuela | 1 | 2,000 | 13,000 |
| Philippines | 136 | 2,100,000 | 13,650,000 |
| India | 29 | 115,000 | 747,500 |
| Bangaldesh | 13 | 60,000 | 390,000 |
| Indonesia | 10 | 10,000 | 65,500 |
| Subtotal | 232 | 2,522,000 | 16,393,000 |
| Other | | | |
| Argentina | 650 | - | - |
| Brazil | 185 | - | - |
| Bolivia | 61 | - | - |
| West Bank | 10 | - | - |
| Haiti | 3 | - | - |
| Indonesia | N.A. | - | - |

a Calculated based on 6.5 persons per electric meter.

Source: NRECA, International Programs Fact Sheet. Revised 2/1/83.

| Generally Successful | | | Less Successful | | |
|---|---|---|---|---|---|
| Bangladesh | -- | Comilla I<br>Dhaka I | Brazil | -- | Ceara |
| | | | Colombia | -- | Cooperativa de Electrification Sevilla-Ciacendonia, Ltd. |
| Bolivia | -- | Santa Cruz CRE | Costa Rica | -- | Coopquanacaste |
| Brazil | -- | Rio Grand do Sol | | | |
| Costa Rica | -- | Coopelesca<br>Coopesantos | Indonesia | -- | Luwu |
| Ecuador | -- | Santo Domingo | Peru | -- | Montero Valley |
| Philippines | -- | Moresco<br>Bantangas | | | |
| India | -- | Sircilla | | | |

In general, the projects were considered successful or unsuccessful based on the following criteria:

- Financial viability;
- Continued growth and expansion;
- Extent of area coverage;
- Loss rates; and
- Extent of membership participation in cooperative activites.

In addition, unsuccessful cooperatives generally had managerial, financial, and organizational problems.

For the most part, rural electric cooperatives have been established as individual, independent organizations. There have been few national movement or rural electric cooperative federation projects as in the case of credit unions and agricultural cooperatives. Although the Philippines and Bangladesh may be viewed as having nationwide projects involving several cooperatives, the unit of analysis for this study is the experience of individual cooperatives rather than a countrywide or movement experience.

A search of the literature revealed only one study comparing the cooperative with the non-cooperative approach to rural electrification. Unlike the credit union movement, cooperative rural electrification has no worldwide body that coordinates, supports, and collects information on its activities. As a result, statistics on the coverage, impact, and effectiveness of rural electric cooperatives are not systematically collected, standardized, and available.

## BENEFITS FROM COOPERATIVE RURAL ELECTRIFICATION

The benefits of rural electric cooperatives are often difficult to identify. First, in most developing countries in which rural electrification programs are undertaken, and in the areas of those countries where the rural electrification projects occur, many other development activities usually also take place. To identify the specific results of rural electrification in this dynamic environment is difficult.

Second, the primary benefit of rural electrification is the electricity itself. All production increases, including improvements in health and standard of living, irrigation systems, and rural health clinics, are the result of access to electricity. In most cases, a central power authority produces the electricity, and the decision to generate electricity is independent of and prior to a decision on the organizational form to distribute that power. Since cooperatives do not, in most instances, cause the power to be generated, it is difficult to separate the specific contribution of the delivery mechanism from the existence of the service itself. This poses severe methodological problems in attributing benefits to the cooperatives.

In this situation, benefits can be attributed to the cooperative only for services provided to people who would not have received them under other distribution systems, to lower

costs for the same services that would have been provided under other distribution systems, or for additional benefits and services that would not have been provided under other distribution systems. These are difficult to measure.

Third, electric utilities are natural monopolies. There are few, if any, instances of two alternative organizational forms of electric utilities competing actively in the same market. Comparisons among organizational forms in this situation are difficult to make. Finally, few evaluation studies have focused on the cooperative aspect of rural electrification; they have concentrated instead on the impact of the electricity itself.

Indeed, in the four AID impact evaluations undertaken in the field of rural electrification (all four programs had strong cooperative elements), almost no analysis of the cooperatives was made. The Costa Rican evaluation briefly discussed only the issue of financial viability, concluding that the cooperatives are viable.[11] The Ecuadorean evaluation merely addressed the negative political environment that led to their demise,[12] the Philippine evaluation concluded that cooperatives should not be developed only because of their democratic nature,[13] and the Bolivian study mentioned the existence of cooperatives only in passing.[14]

In addition, for several potential benefits such as increased productivity and the slowing of rural to urban migration, the impact of rural electrification and of cooperatives may not be realized for years, often until other resources ar in place. In Bolivia and Costa Rica, AID changed its program strategy at the end of a pilot project phase before substantial cooperative activity had been achieved or potential benefits could be measured.[15]

In India, the rupture in U.S.-Indian relations in the early 1970s led to paralysis in the program, and evaluators were unable

to return to measure benefits. However, the five cooperatives established under the program have survived and serve as efficient alternatives to the top-heavy government electricity board. Furthermore, at least 25 additional rural electric cooperatives have been formed since then, and the five-year plan calls for the establishment of 130 rural electric cooperatives.[16]

## Expanding Electricity to New Areas

In some instances, especially in non-donor-assisted areas, cooperatives have been instrumental in bringing electricity to an area. In Santa Cruz, Bolivia, the newly formed electric cooperative put pressure on the central power system to install gas turbines to generate power for the cooperative and its members. In the Philippines, many cooperatives were started with excess U.S. generators that were moved from one cooperative to another. In the outer islands of Indonesia, cooperatives generate and distribute their own electricity. The private cooperatives of Haiti and Jordan (West Bank) also generate their own power. In all of these cases, a cooperative was instrumental in bringing power to the area.

## Greater Coverage

In its market area, a rural electric cooperative is a public utility; the only difference between a cooperative and any other form of public utility is the ownership structure. One major benefit of the cooperative approach to rural electrification is the cooperative commitment to area coverage, which results in a greater percentage of hookups reaching a lower segment of the population than is the case with either public or private sector distribution systems. The Sircilla study in India, for example, shows coverage in the cooperative to be much higher than in the centrally administered program.[17] In Costa Rica, cooperatives had achieved a substantially greater penetration rate than the public and private utilities into groups that were below the poverty and extreme poverty line.[18]

## Increased Adoption Rates

The experience of two cooperatives in Colombia and Costa Rica indicates that the promotion of cooperatives and the involvement of members in this process led to higher adoption rates of electric service than in government-owned electric systems that did not involve the local population.[19] In Bangladesh, pre-feasibility studies predicted initial hookups would only be 15 percent of the potential market, growing to 30 percent in 5 years, 50 percent in 10 years, and 75 percent in 15 years. In fact, after the initial cooperative promotion, which involved membership campaigns, movies, and a strong director training program, initial sign-up averaged 35-50 percent in all areas, and as high as 90 percent in one.[20]

## Greater Responsiveness to Local Needs

The relative merits of decentralization versus centralization apply equally to rural electrification. Even in situations in which the generation of power is highly centralized, distribution can be either centralized or decentralized. The primary advantages cited for a decentralized administration is that it is more responsive to local needs and interests than a centralized bureaucracy. When the local administration is a cooperative, this tendency is reinforced because the clients also own the utility.

## Lower Prices to Consumers

Because electric utilities are natural monopolies, local firms do not compete for rates in a given market area. In addition, the cost of providing individual electricity to dispersed households in a rural setting is considerably more expensive than providing electricity to households in a village or town. Since

cooperatives provide area coverage while public and private utilities have generally concentrated on villages and towns, it is difficult to make meaningful rate comparisons among institutions.

Evaluations in Costa Rica showed that the cooperatives' rates were at least competitive with two private companies in the country (average charges per kilowatt hour in the cooperatives were 5-10 percent lower than of two separate private companies), and that positive benefits accrued to the consumers. The cooperatives' ability to set lower rates depended on the willingness of the Costa Rican government to provide preferential wholesale power tariffs to the cooperatives.[21]

In Bangladesh, the state utility boards charged new customers as much as $100 to initiate services, and even then the customer had to tip employees of the power company to receive a hookup. The cooperatives charged a $0.25 membership fee, with no connection fees.[22]

Lower Delivery Costs

Considering the nature of their clientele, rural electric cooperatives appear to be able to provide electricity at a lower internal cost than would otherwise be possible. This results from the ability to finance some new construction by member contributions, lower line loss resulting from theft of electricity, and lower delinquency rates on payments and loans.[23]

Resource Mobilization

Although rural electric cooperatives have not stressed the mobilization of resources, members have contributed labor and funds.[24]

## Additional Benefits

In Costa Rica, Ecuador, and the Philippines, additional services that are not normally available through other sources have been provided to cooperative members. These include home wiring (providing the service, the technical assistance for the homeowner to do it, or the credit to have it done) and technical feasibility analyses of productive enterprises requiring the use of electricity.

A successful cooperative also can provide a nucleus and forum for further development activity. This complementary benefit has been demonstrated most effectively in the Philippines, where some of the cooperatives engaged in additional activities with linkages back to the provision of electricity. These linkages include the local manufacture of poles and cross members, which are used in the electrification process; improvements in the use of electricity for irrigation; and the sharing of pumps; and the preparation of management plans for water use in agriculture.[25] Rural electric cooperatives in Argentina are reported to be multiservice institutions.

Technical assistance to assist users in adapting more productive technologies -- such as electric looms and irrigation -- are common in developed countries. For the most part, however, this technical assistance has been provided in the developing world only when rural electrification has involved cooperatives.[26]

## Formation of Local Institutions

Rural electric cooperatives represent a permanent presence in the local communities they serve. Only eight institutions formed with NRECA assistance no longer provide rural electricity.

## Achieving Sustainability

Sustainability is an important goal of development projects, especially when organizations are created and institutions strengthened. For this study, sustainability is defined as an organization's long-term ability to provide continuing services to members without depending on outside sources for subsidized goods and services.

The issue of sustainability for rural electric cooperatives differs from that facing other types of cooperatives and organizations. Since the provision of electric power is considered a basic good by most countries, its distribution is, in most cases, highly regulated. The amount and type of regulation can vary greatly and ranges from supportive encouragement of cooperative rural electrification (Bangladesh, Costa Rica, India, and the Philippines) to hostile opposition (Colombia, Ecuador, El Salvador, and Peru). In Nicaragua and Vietnam, decrees issued by the governments abolished the cooperatives. A rural electric cooperative, or development program, can be totally sustainable in its own right, but cease to exist in a short time as a result of unfavorable government regulation.

Financial sustainability requires the ability to maintain a positive net margin after a reasonable debt amortization period. Rural electric cooperatives are normally given a grace period of five years in which to become financially viable.[27] In Costa Rica:

> All four projects generated cumulative positive net margins (even though losses occurred in some years) indicating that all operating expenses, interest and depreciation reserves were met during the most recent three years of operation (1977-1980).[28]

By 1980, 38 cooperatives in the Philippines had been operating for five years and had entered into their amortization period. Of these, 8 were current in their loan repayments, 18 had made advanced payments in response to National Electrification Administratrion (NEA) encouragement, and 12 were delinquent.[29] In addition, Santa Cruz in Bolivia, Santo Domingo de los Colorados in Ecuador, and five rural electric cooperatives in India are all well into their amortization periods and demonstrate apparent financial viability.[30]

A recent study of 189 rural electric cooperatives that have received assistance from the NRECA over the past two decades showed that 181 still operated independently as of 1981. The remaining eight cooperatives were all in Nicaragua or Vietnam.[31] However, two of the countries listed, Colombia and Peru, nationalized their rural electric cooperatives and incorporated them into the national grid in the early 1970s.[32]

## Comparative Advantages of the Cooperative Approach

As public utilities, rural electric cooperatives in the developing world are a hybrid form of organization. On the one hand, they are private sector organizations with private management and ownership, and the ability to fail if they do not cover costs. On the other hand, they have access to concessionary, government-guaranteed credit and receive other governmental support (tax-exempt status, for example) to provide what are often considered government services. Many private power companies also benefit from these concessions and are therefore also often included in this category. As a result, cooperatives should be compared with both governmental delivery systems and with private sector systems when addressing the issue of sustainability, although clear-cut financial comparisons often cannot be made because of governmental pricing and accounting practices that charge different consumers different rates for power and the amortized cost of generating equipment.

A comparison of rural electric cooperatives with national power systems gives the advantage to the former. In Bangladesh, for example, where the parastatal electric companies average 7 meters of electric line per employee, the cooperative sector averages 200.[33] In India, the dismal failure of the state-run electric boards has led to a re-emphasis on cooperatives, which had been successful in the past.[34]

In the case of private power companies, a comparison becomes more difficult because the two systems are not alike. The cooperatives serve a different target population and operate in an environment in which the loads are different. This necessarily results in different bottom lines on profit and loss statements. Nevertheless, the cooperatives appear able to hold their own against traditional private sector activity, although the time necessary to achieve financial viability might take longer.[35] In Costa Rica, all four cooperatives are at present rated as very good or excellent credit risks by the banks, although an average of five years was required to reach this stage.[36]

## A SUMMARY OF LESSONS LEARNED FROM RURAL ELECTRIC COOPERATIVE EXPERIENCES

### Patterns of Success

When one considers the distribution of rural electric cooperatives in the developing world (see Table 10) and the particular patterns of success within countries, two questions come to mind:

- Why did rural electric cooperatives expand in numbers, hookups, and coverage in some countries but not in others?
- Why were there both successes and failures in the same countries?

As Table 10 indicates, there are 650 rural electric cooperatives in Argentina, 185 in Brazil, and 136 in the Philippines, but only 1 in Colombia, Ecuador, Peru, and Venezuela. Rural electric cooperatives are very strong in southeast Brazil, but very weak in the northeast. One cooperative in Bolivia is very strong, but the rest are weak. Coopelesca and Coopesantos in Costa Rica are strong, viable cooperative organizations, whereas Coopguanacaste has been plagued by problems.

Lessons from the experiences of rural electric cooperative projects in developing countries may be divided into eight major groups: donor interests and involvement, project design strategy, project resources, national social and economic environment, role of government and politics, project environment and economics, linkages and support, and internal management and participation.

Donor Interests and Involvement

Although energy-related projects receive large amounts of funding from the international donor agencies, rural electrification has only recently received major support from non-AID sources. The major reason is that the international banks have strict internal rate of return requirements for capital project loans. Rural electrification projects, because of the client base served, tend to have low internal rates of return. Attitudes of the banks are perhaps best illustrated by a quotation in a Costa Rica impact evaluation on the major reason for World Bank refusal to cover the project: "It is uneconomical to bring electricity to the people. Let the people move closer to the electricity."[37] Only in recent years has the World Bank begun to fund rural electrification on a significant scale.

Within the rural electrification sector, cooperatives have played a major role only in AID-initiated programs. Where AID has supported a cooperative approach to rural electrification, subsequent donor agency funding from other sources has tended to

continue the cooperative approach; where other donor program do not follow an AID project, cooperatives are seldom supported. This is partly because the international lending banks respond to requests from host governments, without trying to influence organizational design: in the absence of a prior experience with cooperatives (usually through an AID-funded program), host governments generally do not request support for cooperatives.[38]

Also, the World Bank and regional development banks do not generally provide assistance for developing the local administrative organizations in an electric power program. In joint projects with AID, the banks provide the capital construction funding while AID funds the technical assistance and organizational development support.

AID funding for cooperative rural electrification has declined, absolutely and relatively, in recent years. New projects funded by AID have become increasingly tied to strategic political objectives and emergency supports funds. Very large-scale projects in Egypt, Pakistan, and Sudan have been initiated outside of the regular AID mission funding programs. In these projects, where the objective has been to complete construction and move large amounts of funds rapidly, there has been much less concern with the nature of the ultimate delivery mechanism and cooperatives have not been included in the project designs. As a result, NRECA has found itself increasingly involved in rural electrification projects that do not have a cooperative component.

## Project Design Strategy

Project design strategy has changed since the early projects in Latin America. AID and the NRECA approached these as pilot projects, assuming that if they were successful the host governments would autonomously support additional efforts and that additional funding would be forthcoming from other donor

agencies, principally the international lending agencies. In the early efforts in Colombia, Ecuador, and Peru, the projects established single cooperatives in remote areas and then provided only minimal short-term technical assistance in management.[39]

There were no attempts to develop national-level organizations, either within the government structure or as an integrated cooperative movement. For the most part, the cooperative movement ceased growing when the project ended, as the host governments did not support further expansion and other donor agencies did not continue the efforts. Even today, Colombia, Ecuador, Peru, and Venezuela each have only one functioning rural electric cooperative.

Efforts in Bangladesh, India, Indonesia, and the Philippines have invovled a two-level approach. On one level, projects have supported the development of national government agencies, patterned after the REA of the United States, that coordinate the promotion, organization, financing, and regulation of cooperatives. The Rural Electrification Board in the Philippines established provincial electric cooperative teams (PECTs), to promote and assist the organization and development of electric coopertives. On the second level, more recent projects have provided assistance to establishing individual base-level cooperatives. This approach has led to a continued expansion of rural electric cooperatives in all four countries.

Expected benefits, especially in the early pilot projects in Latin America, have been specified in unrealistically short time frames. Many of the projects in Colombia and Peru specified in their designs an unrealistic level of benefits that were to be achieved quickly. When these did not materialize on schedule, the pilot projects were considered failures and funding was discontinued.[40] However, when project implementation extended over a sufficient period of time, as in the Philippines, viable cooperative organizations were indeed established.

## Project Resources

Rural electrification projects are large, capital-intensive efforts. Most of the attention and funding in such projects is focused on the physical construction of generating capacity and extending trunk lines.

The development of local institutions capable of managing and extending the benefits of rural electrification requires training and technical assistance over a long period. Because electricity alone does not improve living standards, productive uses must also be planned for and promoted. This necessarily involves the provision of credit, training, and technical assistance for activities other than the mere arrival of the power lines.[41]

Furthermore, these must be provided to cooperative members and management alike. In the past, donors supporting rural electrification have been reluctant to increase a project's complexity by adding elements such as training and technical assistance. This has resulted, on the one hand, from the imperative of simplifying a project to get it through the approval process and, on the other, from a lack of understanding about the importance of these elements. In some cases, AID has agreed to provide loan funds for support functions. Governments have wanted training and technical assistance only if they are grant funded.[42]

## The National Social and Economic Environment

The provision of electric power in many countries is often considered as both an economic and a social end -- the state is obligated to provide electricity, and people have the right to receive it. As a result of its popularity among both urban and rural dwellers, electricity is often seen as a political tool by politicians seeking support within their constituencies.[43]

For these reasons, projects may be initiated when they are not completely justifiable in economic or financial terms. These social and political justifications for providing electricity to rural areas often blur the potential comparisons between cooperative and non-cooperative delivery mechanisms, making either alternative substantially less viable.[44]

## The Role of Government and Politics

The role of government is critical in determining both the existence and the success of rural electric cooperatives. As one study concluded, "The issue of sustainability of a particular organizational form is therefore closely linked to that of assessing the degree of commitment at the national level."[45]

An evaluation in Costa Rica noted that:

> The successful establishment of rural electrification cooperatives is greatly enhanced by the existence of supportive and mutually reinforcing attitudes and policies on the part of the national government, the power generating authority and the cooperative management.[46]

And, as noted in an evaluation of the rural electrification program in the Philippines:

> The success of the Philippines program in meeting its physical targets appears to be due to . . . a very strong political commitment on the part of the central government which assures that adequate financial and human resources are available to the implementing organization.[47]

This is an extreme case. In the Philippines, the existence of cooperatives in rural electrification stems from President Marcos's strong commitment to the use of cooperatives in this

area. In fact, many of the present cooperatives in the Philippines had been private companies that were forced by the government to convert to cooperative ownership.[48]

In other cases, government support has been more tentative. Sometimes it is present during project design and then evaporates during program implementation. This usually results from changes in government administrations and in policy affecting rural electrification. This has happened in Brazil, Ecuador, India, Nicaragua, Peru, and Vietnam. Unfortunately, these cases are more numerous than those in which government support was forthcoming.[49]

Willingness to Tolerate Independent Organizations

In addition, governments differ in the extent to which they foster or discourage local participatory organizations. In the Philippines, the cooperative approach led to the formation of many democratic organizations, showing the potential for the initiation of a grassroots rural power base. National and local political leaders, instead of viewing this approach as a threat, were quick to learn how to use this power base for their own ends, thereby becoming even more supportive of the cooperative approach.[50] Recently, some of the cooperatives are reported to be subject to pressures from the central government and local politicians as well. These pressures appear to have taken the form of ever-increasing government control of cooperative activities.[51]

In Ecuador, governmental fears that independent grassroots cooperatives could not be controlled led to a withdrawal of support of rural electric cooperatives. As a result, of the several cooperatives that were to have been established under the AID-financed program, most were never set up, one failed in its initial years, and only one survives today. That cooperative is

located in a boom town and had the support of local business leaders with prior credit union experience and ties to the national government in Quito.[52]

## Nationalism and Electricity as a Public Service

Early attempts at cooperative rural electrification in Latin America conflicted with two other trends that were taking place in the region at that time. One was that the attempted introduction of cooperatives coincidently occurred during, or shortly after, a period when many of these governments were nationalizing electric power systems. Until the early 1960s, most electric power facilities were owned and operated by Canadian, English, and U.S. companies. Nationalization of these industries created a strong consensus, both public and private, against private enterprise in the power sector. At the same time, and partly as a consequence of the nationalization, there was a growing feeling that electric power was a government responsibility and that government should provide it as a public service.

The combination of these two factors led most of the Latin American countries to reject a strong rural electric cooperative program, with the result that only individual, isolated cooperatives were permitted in Colombia, Ecuador, Panama, Peru and Venezuela.

## Project Environment and Economics

The ability of a rural electric cooperative to achieve economic sustainability is dependent on a wide range of economic and environmental factors. These are discussed below.

## Importance of a Local Niche

To be successful, a cooperative must fill a felt need and effective demand within the local population. Apart from official government programs that stressed a cooperative approach, rural electric cooperatives have succeeded where they filled a void in national power networks. In India, they were initially successful in isolated areas that were not served by the central network; self-generation through cooperatives was the only means to obtain electrification. The cooperative on the West Bank of the Jordan River, and initial cooperatives in the Philippines, occupied similar niches. As the central power network expanded in the Philippines, cooperatives abandoned their more costly generation activities and became distribution cooperatives for the national network. The regional electric cooperative (CRE) in Santa Cruz, Bolivia, was started to fill a void in electric power provision in that region.

Cooperatives that have not occupied such a niche have had difficulty surviving. Throughout much of Latin America, the philosophy of power as a public service and opposition to private ownership of power networks have precluded a favorable environment for cooperative rural electrification. Cooperatives in Indonesia compete with the local political structure.

## Importance of Productive Uses

Productive uses of electricity are important for building the load of a power distribution network to an economically viable level. Depending greatly on the costs and charges, service delivery to the consumer often cannot be made cost-effective unless the power is used for productive purposes. An early attempt to evaluate the cooperative rural electrification movement in Latin America stated:

> If developing countries are to justify investments in rural electrification on the basis of economic development, utilization of energy must be in such a manner that it increases the productivity of rural inhabitants. If investments are to be justified on the basis of social progress, electricity and the mechanism for its distribution must improve individual and community welfare.[53]

The greater the productive usage, the greater the load factor of a service connection will be. For rural dwellers, this normally means the increased use of electricity for irrigation and local processing of agricultural products, the establishment of rural industries and workshops, and the increased use of electricity for social purposes. This increased usage, therefore, leads to additional economic activity by the consumers and presumably to increased benefits from power connections. It also decreases the per-unit cost of producing electricity, thereby increasing the suppler's financial viability.[54]

Many of the most successful cooperatives in the sample were located in areas of intensive agriculture. Bantangas in the Philippines was located in an area that produced pineapple and sugar, and that had and extensive fishing industry and numerous small enterprises. Moresco, also in the Philippines, was in an area with a strong economic base, diversified agriculture, and extensive production for exports.

Rural Density

Related to productive uses, rural electric cooperatives have a better chance of achieving economic viability when they are located in densely populated areas. This lowers the costs of individual hookups, permits a greater load within a small geographic area, and facilitates member communication and involvement. The successful cooperatives in the sample (notably southeast Brazil, Moresco, Bantangas, Dhaka I, and Dhaka II) were all located in areas of high population density, whereas the

the unsuccessful cooperatives (particularly Luwu, Montero Valley, northeastern Brazil, and Coopguanacaste) tended to be located in low density areas.

Population Resource Base

The success of rural electric cooperatives is directly related to the socioeconomic status of the member population. The less successful cooperatives in the sample (Montero Valley, Luwu, and Northeast Brazil) served very low-income families. The reduced ability to pay and much lower than average utilization rates significantly reduced the chance of success. However, the more successful examples (southeast Brazil, Moresco, Coopesantos, Coopelesca, and Bantangas) were all located in relatively prosperous areas. Utilization rates were higher, and the cooperatives were able to set realistic prices.

It is perhaps significant that rural electric cooperatives in Latin America are most prevalent in southeast Brazil and Argentina. There are two areas of extensive immigration from Germany and Italy, two countries with strong cooperative antecedents.

Customer Profile

Paralleling this effort, a power company or cooperative, serving rural areas, attempts to obtain a mix of power users that will result in the most profitable (or least-loss) bottom line. This normally means that the power entity will provide service to urban as well as rural users, and to industry as well as households.

The inability of Montero Valley cooperative in Peru to serve the city of Huancayo is one major reason it was not able to achieve financial viability. At the same time, the presence of a substantial industrial load (textile mills) provided Dhaka I a

sufficient volume of business to support the lower volume rural hookups. Coopelesca benefited from a strong local dairy industry that converted to electric power. Moresco became financially viable when it gained the right to serve six large companies in the region.

A customer profile that includes towns, villages, local businesses, and industries permits the cooperative to cross-subsidize, its services to low-income, rural households. Without that potential for cross-subsidization, it is usually not financially feasible to serve rural households. Although this mix is necessary economically, it has caused those evaluating rural electrification programs to criticize their seemingly low percentages of rural beneficiaries.[55]

## Tradeoff Between Area Coverage and Sustainability

There is an important tradeoff between the extent of coverage of a rural electric system and its financial viability. The real profit in electric power delivery lies in service to large industrial users where the load is high. Households, whether urban or rural, in a well-off or a poor country, do not use the amounts of electricity that industry does. Also, as coverage expands into less densely populated areas, costs per hookup increase exponentially. Households, especially rural households, are therefore less profitable.

This leads to low, or non-existent, profit margins and discourages private power companies from providing area coverage to low-volume rural users. Rural electric cooperatives serve rural populations that would not be served by the private sector, and the inverse relationship between profits and coverage often has a direct negative impact on the financial viability of cooperatives, at least in the short run.[56] This situation occurred in the United States in the 1930s and holds true in developing countries today.[57]

Evaluators often appear to neglect this point when comparing the various delivery mechanisms. In one case, the World Bank turned down a request by the government of Costa Rica to expand its cooperative rural electrification program because the three AID-financed cooperatives did not demonstrate the required profitability ratios that the bank required for the short term. A few years later, these same cooperatives were considered financially viable by the AID impact evaluation, and very good to excellent in their credit rating by Costa Rican banks.[58]

### Access to Low-Cost Power

Access to low-cost power, supplied by a national grid, is important for the long-range financial viability of the cooperatives. Self-generated power tends to be considerably more expensive for the cooperative and adversely affects internal costs and prices.

### Pricing

The financial viability of a rural electric cooperative depends greatly on its pricing margins. If these are large enough, the cooperative can achieve financial viability; if not, or if they are negative, the cooperative will be financially weak and dependent on government subsidies. If a government chooses to favor cooperatives (as has been the case in Costa Rica and the Philippines), it can set prices to consumers, prices the cooperative has to pay for electricity, and debt requirements to the government in a way that ensures sustainability. Conversely, when the government decides to take over a power distribution network, it can establish rates that result in negative margins. This occurred in Montero Valley, where government-imposed rate structures did not permit sufficient margin to maintain the system and service the debt.

Other pricing decisions are internal. Coopguanacaste deliberately set low rates to consumers, resulting in a decapitalization of the institution.

Ability to Maintain Minimum Cost Structures

Because of the inherently higher costs of providing service to their target populations, rural electric cooperatives often experience higher overall costs than do private sector operations, except when private power companies serve rural areas. Costs then appear to be the same. Nevertheless, when compared with public sector alternatives, which often serve similar target populations as cooperatives, cooperatives themselves exhibit several cost-saving features.

For example, some cooperatives (in the Philippines, for example) use volunteer-member labor for less technical tasks, such as clearing right-of-ways. This practice builds self-help into the functioning of the cooperative.[59]

Another element leading to lowered costs is the reduction of the theft of electricity due to unauthorized or unmetered connections. Cooperative members, knowing that their own costs will rise as a result of theft, serve as vigilant guards of the distribution lines. As a result, the theft of power has been greatly reduced in such countries as the Bangladesh, Costa Rica, and the Philippines.[60]

Cooperatives also appear to have been successful in reducing delinquencies. In several of the cases, cooperative delinquency rates are far lower than rates for government power suppliers. In Bangladesh, for example, the cooperative rate was approximately 5 percent, whereas the government parastatals averaged 40 percent.[61] In Costa Rica, the delinquency rate for

cooperatives averaged a mere 2 percent, although no data are available on government delinquency. Again, as with power theft, member peer pressure seems to be the key factor.[62]

The Sevilla-Ciacendonia cooperative in Colombia suffered from severe delinquency problems. These came not from the rural households, however, but from the refusal of the two municipalities to pay the cooperative.[63]

## The Role of Subsidies

Financial sustainability depends on access to low-cost financing and having the time necessary to amortize capital investments. Most rural electrification programs in developing, and developed, countries have been supported by low-cost, subsidized financing, whether or not the delivery mechanism was cooperatives.[64]

Given the multiple social and economic objectives and the difficulty of covering costs with revenues in rural electrification, subsidies appear to be generally necessary, at least in the short and medium term. Three factors account for this: the cost of stringing lines and providing service to remote, sparsely populated areas is very high; the low volume of usage in these areas would result in high electricity rates to cover the cost of service; and small, low-income farmers cannot afford to pay the full rate for electricity in these circumstances.

The issue therefore is not one of subsidizing the cooperative as an organizational form, but of whether to provide electric service to this sector of the population. A subsidy would be required regardless of the organizational form employed to distribute the electricity. As such, subsidies are a question of national policies and priorities rather than of whether cooperatives are a more efficient delivery mechanism than alternative organizational forms.

Two types of subsidization are possible in a rural electrification project: cross-subsidization of rates by charging industrial and commercial users higher rates than low-volume households, and direct subsidies in the form of low-cost loans and artificially low wholesale electricity prices. Direct subsidies represent real costs to the national or international donor and, thus, are not cost savings, but cost transfers to others.

## Linkages and Support

To be successful, rural electric cooperatives should be part of an overall, integrated program of support. Support to rural electric cooperatives comes from two sources. One is the official government power authority, such as the REA in the United States, NEA in the Philippines, the Rural Electrication Board of Bangladesh (REB), and the Rural Electrification Commission (REC) in India. These institutions promote rural electrification through loan programs and subsidized rates. They have access to internal and external credits and can make funds available to cooperatives. One recent study phrased the situation this way:[65]

> . . . Viability [depends on] continuing technical and financial support from a national entity such as the REA in the U.S. and the NEA in the Philippines. This may be confirmed by the demise of the cooperatives in Colombia and Ecuador where such support was lacking.

A second type of organization that is important for promoting and supporting rural electric cooperatives is a national-level support organization. This organization, which can technically backstop the cooperatives on technical as well as organizational issues, can also lobby for the cooperative sector. In addition, it can serve as a unifying force among the various rural electric cooperatives in a country, just as NRECA does in the United States. In Costa Rica and India, national-level

support organizations are being formed, and federations of rural electric cooperatives already exist in Argentina, Brazil, Chile, and the Philippines. Mandel, however, reported that the Philippine organization has become top heavy and more concerned with regulation than support.[66] It has not been able to secure financial resources to support its program activities.

A third form of linkage and support that developed for several of the more successful cooperatives was a relationship between the cooperative and United States, rural electric cooperatives. CRE, in Bolivia, developed an active relationship with the Blue Ridge cooperative in the United States, and even exchanged board members on a regular basis. Chilean and Costa Rican cooperatives maintained close relationships with the NRECA and local U.S. cooperatives.

## Internal Management and Participation

### Management

Apart from government control and regulation, organizational sustainability is a management issue. One factor favoring rural electric cooperatives, compared with other cooperatives, is their large size. This, in all cases studied, plus the technical nature of electric cooperative management, enabled the cooperatives to hire outside management, often from the staffs of the national power authorities. In the Philippines, managers are frequently seconded to the cooperatives from NEA for an initial period. This ability to secure managerial talent has made the goal of sustainability easier to achieve.[67]

Good and stable management has been acknowledged as a major success factor in most of the successful rural electric cooperatives. CRE in Bolivia had only two managers between 1970 and 1984; Coopesantos and Coopelesca in Costa Rica also had effective and relatively stable management -- one manager with a strong business background during the entire history of Coopesantos and

three during a 15-year period at Coopelesca. Strong, innovative management was also cited in the cases of Bantangas and Moresco in the Philippines.

Equally important over the long run is that management be selected internally by the cooperative, not imposed or provided by the government. The successful cooperatives of Bantangas, Moresco, Coopesantos, and Coopelesca had independent, internally selected managers that were responsible only to the board of directors.

At the same time, good management is not automatically ensured for rural electric cooperatives. The cooperative in Sevilla-Ciacendonia, Colombia, had 10 different managers in 10 years. Luwu, in Indonesia, had government-appointed managers who were ineffective in developing the cooperative as an independent organization.

Boards of Directors

Stable, well-informed, and responsible boards of directors are also important for the success of rural electric cooperatives. CRE, in Bolivia, had a stable board, with a slow but steady rate of turnover. The fact that the first board members were predominantly educators, teachers, community leaders, and larger farmers was cited as a reason for the success of Moresco and Bantangas. Both Coopesantos and Coopelesca had relatively stable, well-informed, and active boards of directors. At the other end of the spectrum, board membership was an avenue for national political ambitions in the case of Coopguanacaste, and there was a rapid turnover of the board.

## Education and Training

All the projects rated as successful had relatively strong education activities, for board members and other members of the cooperative. In some cases, this took the form of exchange programs with U.S. rural electric cooperatives.

## Member Participation

The importance of member participation in the decision-making process has been much discussed in development the literature. Several evaluators, following AID New Directions guidelines and attempting to quantify participation, have found low levels of participation in rural electric cooperatives.[68] However, rural electric cooperatives in developing countries do not have lower participation rates than other cooperatives -- either in the United States or in developing countries. And rural electric cooperatives involve more participation than either governmental or private utilities, which provide for no organized client participation at all.

The Philippine impact evaluation stressed that effective management rather than participation should be the primary criteria for selecting a cooperative approach to rural electrification:

> In choosing the type of organization to be used in distributing power, priority should not be given to cooperatives based on their theoretical democratic nature. In judging what form of organization to use, planners should give preference to effective management. Achievement of objectives such as popular participation by an organization is conditioned by history, culture and political climate rather than by goods or services with which the organization deals.[69]

Instead of pursuing participation as a goal in itself, participation should be viewed as a mechanism to improve service delivery, responsiveness, and organizational sustainability.

The use of participation indicators often begs the question of how much participation is really necessary.[70] A recently completed summary report of four impact studies on rural electrification also concluded that past measurements of participation were misleading. The report suggested that other measures (such as the degree of local technical involvement, the overall sustainability of the cooperative, and the existence of effective service delivery) were more appropriate indicators of member participation.[71]

The value of democratic participation differs at each stage in the development of rural electrification. The most appropriate time for the democratic participation of beneficiaries in the decision-making process is during the initial stages of a program when decisions are made about who is interested in electricity, where the wires will go, and how the system will be paid for. Member involvement at this stage of the program in Bangladesh resulted in a significantly higher percentage of hookups in the project area. At a later stage, when construction has been completed and the cooperative serves more as an administrative organization, a lower level of direct member involvement would be necessary, and it would be natural to find decreased daily activity and lower attendance at meetings.[72]

The importance of participation in early decision making and organization was illustrated in the case of Bangladesh, where initial adoption rates far exceeded project estimates. However, the absence of member participation in this stage was instrumental in the failure of rural cooperatives in Ecuador:

> The cooperative form, even where successful, did not bear out the more optimistic hopes generally reposed in such institutions in that it did not catalyze significantly greater participation at the local level. This is not surprising given the history which shows that cooperativism in Ecuador was much more an AID creation than a response to a local desire. Had we not been so involved in coop promotion in the early sixties as a response to Castro's marxist model, AID might well have discovered more about the political relationship between the municipalities and the central government and designed its electrification activities to strengthen municipal and regional institutions. In any event, however, the coop approach was largely doomed from the day that the Mission decided to work from the top down to create coops through INECEL [the Ecuadoran National Electrification Agency] rather than attempt to build from the ground up at the local level.[73]

### Debt-Equity Ratios

Maintaining a good debt-equity ratio is a critical factor for rural electric cooperatives in the developing world. Cooperatives that have failed to maintain a good ratio (including Coopguanacaste, Montero Valley, and Sevilla-Ciacendonia), either because of rapid expansion or inadequate pricing and collections, have had difficulty achieving financial viability.

## Summary

The experiences of rural electrification efforts in developing countries indicate that certain factors are systematically related to the patterns of success in establishing rural electric cooperatives. These factors are discussed below.

### Donor Support

Unless international donor agencies are concerned with the mechanisms for distributing electrical power to consumers, and support a cooperative approach, host governments tend not to

choose a cooperative approach. The role of the donor agencies is, therefore, critical in the initial determination of whether or to develop cooperatives.

### Regional or National Orientation

A project design that develops a national or regional commitment to further cooperative development is essential for the long-run success of rural electric cooperatives. Projects designed to develop individual, isolated cooperatives will have little impact beyond the immediate cooperative, as was seen in Latin America during the 1960s and early 1970s. Projects designed to develop national support, however, have a much greater chance of developing a cooperative system that can continue to expand in terms of the number of cooperatives and impact on society.

### Role of Government

National government support to rural electric cooperatives is essential for long-term viability and growth. At a minimum, this support must consist of a rational pricing policy and the willingness to tolerate private enterprises in the power distribution sector. Cooperatives are more successful where the national government actively supports cooperative development in the sector, as in the case of Bangladesh and the Philippines, and, more recently, India. This support seems more likely when the national government has not previously nationalized foreign-owned private utilities and does not have a strong conviction that power should be provided as a government service.

### Adequate Load

A cooperative, like any other business enterprise, must be financially viable to succeed. For rural electric cooperatives, this means that the cooperative must be serving an adequate consumer load. In practice, an adequate load can best be achieved in economically prosperous, densely populated rural areas that also have a base of industrial or business customers and villages and towns as purchasers of electric power. Adequate load is also facilitated by an increasing use of electricity for productive purposes.

### Internal Rates of Return

Because of the nature of the client population, rural electric cooperative projects will have relatively low internal rates of return. Donor agencies should recognize this, and facilitate the design of projects that allow cross-subsidization or that provide for direct subsidies to provide electric service to the target population.

### Strong Independent Management

Strong, independent management is important for the success of rural electric cooperatives

### Member Participation

Member participation, particularly in the early stages of the cooperative, is important for achieving acceptable adoption rates, utilization rates, and organizational responsiveness.

# GUIDELINES FOR FUTURE RURAL ELECTRIC COOPERATIVE PROGRAMS

Guidelines for future cooperative development activities in the rural area must be considered in the context of two conclusions:

- The cooperative approach to rural electrification has a relative advantage over other approaches, even though any attempt to provide electricity to low-income rural households requires subsidized credits; and
- The development community that favors cooperatives makes almost no systematic attempt to document the lessons learned from experience with cooperatives in the developing countries.

## A Favorable Cooperative Environment

It should be no surprise that the success or failure of a cooperative rural electrification program is conditioned by its economic, political, and social environment. Only if the environment for the promotion of rural electric cooperatives is positive can the potential benefits of this approach be realized.

As a prior step to the design of a rural electrification programs, an assessment should be made of the feasibility of cooperatives as the delivery mechanism. This assessment should examine:

- Overall government development philosophy concerning electricity;
- The existence and quality of a cooperative law;
- The country's experience with cooperatives or with local participatory organizations engaged in economic activities; and
- Other factors that would tend to support or defeat cooperative activity in the country.

This assessment would not be difficult to perform since the NRECA already collects similar data in the energy surveys it administers as part of project design. What is missing in current efforts, however, is an objective examination of the cooperative potential in the context of a given country.

Since decision makers and planners in many countries are unaware of the cooperative alternative, or are biased against it because of philosophical objections or unfavorable past experience, the cooperative assessment could become an exercise of enlightened advocacy. Seminars might be held in which the strengths and weakness of various alternative delivery mechanisms are discussed. This type of activity might serve to make the selection of a delivery mechanism less subjective than it appears at present.

Since in many of the examples studied, changes in governmental policy or personnel led to the erosion of a favorable cooperative environment during program implementation, program agreements (the contracts between the host government and the donor) should be more specific in defining host government contributions and support to the program.

## The Need for Developing a Data Base on International Rural Electric Cooperatives

A great deal of analytic research has focused on rural electrification. Very little of this work has explored the impact of different delivery mechanisms or the contribution of cooperatives to successful rural electrification efforts. NRECA maintains that its major donor, AID, although financing several studies on the impact of rural electrification programs, has failed to provide funds for research into the cooperative element. A 1977 evaluation of NRECA made one formal recommendation concerning cooperatives:

> It is probable that there is no universal solution to the problem of whether cooperatives or some other type of organization is best suited for distribution of electricity in the rural areas of developing countries. DAI recommends that the comparative advantages of cooperatives versus other organizations be more thoroughly studied and that feasibility and evaluation studies of particular areas which are candidates for rural electrification be conducted with careful thought given to whether and how cooperatives can be effective.[74]

The data available for this study indicate that this recommendation was not implemented. Much of the data needed to perform the analyses originally planned were simply not available on the cooperative aspect of rural electrification. The impact and benefit of rural electrification are well studied and documented; the specific impact of cooperatives in that process is not.

The type of data needed to examine the cooperative contribution to rural electrification is not amenable to building a data base. To capture the benefits of the cooperative approach, the data would have to show that a user of different socioeconomic status and volume-of-service was reached by the cooperative. They would have to show that cost-per-kilowatt-hour, when adjusted for the user load, was different than for alternative power distribution mechanisms.

The data would further have to show that people involved in cooperatives perceived and acted differently than those served by other organizational forms -- as measured in such terms as felt control, responsiveness of the system to their needs, and quality of service received. Data on the benefits of rural electrification are not relevant to the question of whether the cooperatives are effective or worthwhile, except in those cases in which the cooperative was responsible for the generation of the electricity itself.

These are not data that can be routinely collected and stored in a data base. They are more appropriately generated in a research study designed to collect data on specific projects for an evaluation. A series of individual, case studies is probably a more appropriate way to approach this issue than attempting to build a data base of past experiences.

Collecting data on some of these issues in each study or evaluation of a rural electrification project would begin a set of case-study data that can be used to summarize and generalize findings.

## Improving Project Designs

The need for an overall integrated program of support to cooperative rural electrification activities over a significant time period is critical to realizing the total potential benefits of the cooperative approach. NRECA has found that for a cooperative rural electrification program to meet its goals it must be part of an integrated and sustained development offensive in an area. This necessarily involves the provision of credit, training, and technical assistance for activities other than the delivery of power. When possible, donor agencies should provide grant funding for these support activities. One potentially successful approach is the establishment, or strengthening, of a national-level support organization to nurture and support rural electric cooperatives.

The sustainability of rural electric cooperatives is conditioned by the presence of financial and organizational viability. This viability is directly affected by the designation of the target population and the mix of types of electric consumers. Programs seeking to aid rural and poor constituents should use more liberal, or long-term, criteria when judging organizational and financial viability.

To encourage sustainability and increase financial viability, cooperative rural electrification programs should take advantage of the availability of volunteer-member labor. Similarly, the cooperative approach can benefit from the reduced theft and misappropriation of electric power, as well as reduced delinquency rates. Cooperative programs will also have a comparative advantage when the supply of electric power is decentralized.

The design of a cooperative rural electrification program should take advantage of the delivery mechanism to provide additional services to members and to engage in complementary development activities. The establishment of a cooperative rural electrification program normally requires substantial resources, which can also be directed toward general development activities. Care should be taken, however, that these complementary activities do not jeopardize the overall sustainability of the program.

# NOTES

1 Interview with Philip Costas, NRECA Evaluation Officer, July 23, 1984.

2 World Bank, Rural Electrification, 1975.

3 Ibid., p. 13.

4 From an analysis of the annexes in Thomas Niblock, Retrospective Analysis of NRECA's Activities with AID Funding, 1962-1981, NRECA, draft, no date.

5 From interviews with NRECA and World Bank staff members.

6 Interview with Douglas Barnes, contractor to the World Bank and principal researcher for its rural electrification impact study, March 30, 1984.

7 Interview with Thomas Quirk, Assistant Administrator, IPD/NRECA, March 1, 1984.

8 Summarized by Philip Costas in interview on March 28, 1984.

9 Interview with Edward Gaither, Regional Administrator for Asia, IPD/NRECA, March 1, 1984.

10 Response from Samuel Bunker to Bolivian Rural Electrification, Project Impact Evaluation draft, September 1980.

11 Paula Goddard et al., The Product is Progress: Rural Electrification in Costa Rica, Project Impact Evaluation No. 22, p. 15.

12 Judd Kessler et al., Ecuador, Rural Electrification, Project Impact Evaluation No. 21, p. 15.

13 David Mandel et al., The Philippines: Rural Electrification, Project Impact Evaluation No. 15, p. 14.

14 Edward Butler, Bolivia: Rural Electrification, Project Impact Evaluation No. 16, USAID, December 1980.

15 Interview with James Lay, Regional Administrator for Latin America, March 27, 1984.

16 Interview with Philip Costas citing Biswa Nath Mukherjee and Govind Narain Sharma, A Quick Impact Study of the Cooperative Electric Supply Society Ltd., Sircilla, Council for Social Development, New Delhi, 1982.

17 Mukherjee and Sharma, Ibid.

18 Goddard, The Product Is Progress, p. 11.

19 Davis, et al.

20 Interview with Edward Gatiher.

21 NRECA, An Evaluation of the Viability of Rural Electrification Cooperatives in Costa Rica, November 1980, pp. 80-85; NRECA, 1978, Appendix E.2. During the meetings of the Cooperative Advisory Group in June 1984, Misael Monje, general manager of Coopesantos, argued that the evaluation report was in error: the Costa Rican government did not provide preferential rates to cooperatives.

23 NRECA, 1978; Mandel et al., The Philippines.

24 NRECA, Rural Electrification in Costa Rica, p. 85.

25 Interview with Philip Costas.

26 Interview with Edward Gaither, August 9, 1984.

27 NRECA, Rural Electrification in Costa Rica, p. 59.

28 Ibid., pp. 59-60.

29 Mandel, The Philippines, Annex D-1.

30 Interviews with James Lay and Philip Costas.

31 Niblock, Retrospective Analysis, Annex H.

32 Interview with James Lay.

33 Interview with Edward Gaither.

34 D.V. Smith et al., Report of the Regional Rural Electrification Survey to the Asian Development Bank, ADB, 1983, p. II.6.

35 Wasserman, Power to the People, Annex F.

36 NRECA, Rural Electrification in Costa Rica, p. 15.

37 Goddard, The Product Is Progress, p. 15.

38 In the absence of donor initiatives, most developing country governments prefer delivery mechanisms for rural electrification that do not include either private utilities or cooperatives. Gary Wasserman and Alice Devenport, Power to the People, Rural Electrification Sector Summary Report, U.S. Agency for International Development, December 1983, p. 2.

39 Interview with James Lay.

40 Interview with James Lay.

41 Niblock, Retrospective Analysis, pp. 70-73.

42 Interview with Philip Costas, James Lay, Edward Gaither, and George Doud, March 26, 1984.

43 Interview with Samuel Bunker.

44 Interview with James Lay.

45 Robert R. Nathan Associates, Inc., Contribution of AID Documentation to the Evaluation of its Rural Electrification Projects, Volume II, September, 1979, p. 28.

46 Goddard, The Product Is Progress, p. 18.

47 Mandel, The Philippines, p. 14.

48 Interview with Philip Costas on July 23, 1984.

49 Impact Evaluations for Ecuador and Bolivia and interviews with NRECA staff members for the remaining countries.

50 Mandel, The Philippines, Annex C.

51 Interviews with Philip Costas and Gilbert Moon, NRECA Representative in the Philippines.

52 Kessler, Ecuador: Rural Electrification.

53 James E. Ross, Cooperative Rural Electrification, Case Studies of Pilot Projects in Latin America, Praeger, 1972, p. v.

54 Goddard, The Product Is Progress, pp. 5-14.

55 Development Alternatives, Inc. (DAI), An Evaluation of the Program Performance of the International Program Division of the National Rural Electric Cooperative Association, U.S. Agency for International Development, January 1977, Annex C. This evaluation especially criticized the Santa Cruz Cooperative in Bolivia for having a high percentage of urban members.

56 Wasserman, Power to the People, pp. 24-26 and Annex F.

57 Summarized from interviews with Samuel Bunker and Philip Costas.

58 Interview with James Lay.

59 Phone interviews with Lloyd Lake and William Wenner, retired overseas representatives of the NRECA, March 27, 1984.

60 Interviews with NRECA staff members.

61 Interview with Edward Gaither.

62 NRECA, Rural Electrification in Costa Rica, p. 36.

63 Interview with James Lay.

64 Interview with Philip Costas.

65 Robert R. Nathan Associates, Inc., Contribution of AID Documentation to the Evaluation of its Rural Electrification Projects, Volume II, September, 1979, p. 28.

66 Mandel, The Philippines, Annex C, corroborated by interview with Philip Costas.

67 Niblock, Retrospective Analysis, p. 32.

68 DAI, Program Evaluation, country annexes; Butler, Bolivia: Project Evaluation; and Mandel, The Philippines.

69 Mandel, Ibid., p. 14.

70 Interview with Philip Costas.

71 Wasserman, Power to the People, Annex F-8.

72 Mandel, The Philippines; Interview with Edward Gaither.

73 Kessler, Ecuador: Rural Electrification, p. 15.

74 DAI, Program Evaluation, p. 59.

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# GLOSSARY OF TERMS AND ACRONYMS

| Acronym or Term | Definition |
|---|---|
| ACCU | Asian Confederation of Credit Unions. |
| ACDI | Agricultural Cooperative Development International. |
| ACOSCA | African Confederation of Credit Unions. |
| AMC | Area Marketing Cooperatives project in the Phillipines, supported by ACDI. |
| ANACH | Federation of farm labor union cooperatives supported by the U.S. Embassy and the American Institute for Free Labor Development in Honduras. |
| ASINCOOP | Peruvian cooperative housing finance organization. |
| BANDESA | Agricultural Development Bank of Honduras. |
| BANCOOP | Cooperative Bank of Peru or Costa Rica. |
| CCC | Central Cooperative Union of Swaziland, which was assisted by CLUSA. |
| CCCS | Canadian Cooperative Credit Society. |
| CCCU | Caribbean Confederation of Credit Unions. |
| CHF | Cooperative Housing Foundation, formerly named the Foundation for Cooperative Housing (FCH). |
| CLUSA | Cooperative League of the United States. |
| CMP | Cooperative Marketing Project in the Philippines assisted by ACDI |
| COLAC | Latin American Confederation of Credit Unions. |
| COAGRO | National Federation of Agricultural Cooperatives, a Panamanian project implemented by CLUSA |
| COPAC | Committee for the Promotion of Aid to Cooperatives. |
| CRE | Regional electric cooperative in Santa Cruz, Bolivia. |
| CREDICOOP | Credit Union Federation of Paraguay. |

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| CUNA | Credit Union National Association, Inc. The national trade association and service organization for the U.S. credit union movement. Until recently the U.S. cooperative development organization that monitored U.S. A.I.D. grants and contracts for credit union development and promotion. |
| DIFOCOOP | Direccion de Fomento de Cooperativas, government agencies responsible for promoting and supervising cooperatives in Honduras. |
| DPG | Development Program Grant, an AID funding mechanism. |
| ESF | Economic Support Funds. |
| FCH | Foundation for Cooperative Housing. Earlier name for the Cooperative Housing Foundation (CHF). |
| FACACH | Credit Union Federation of Honduras. |
| FECOAC | Credit Union Federation of Ecuador. |
| FECOAGROH | Honduran Federation of Agricultural Cooperatives, a Honduran project implemented by ACDI. |
| FECOAR | Federation of Regional Agricultural Cooperatives, a Guatemalan project implemented by ACDI. |
| FEHCOVIL | Housing Cooperative Federation of Honduras. |
| FENACOAC | Credit Union Federation of Guatemala. |
| FENACOOPARR | National Federation of Rice Cooperatives, an Ecuadorean project implmented by CLUSA. |
| FENACRE | Credit Union Federation of Bolivia. |
| HABITACOOP | Open housing cooperative and Technical Service Organization in Chile |
| IAF | Inter-American Foundation. |
| IFFCO | Indian Farmers Fertilizer Cooperative in India, created with the assistance of CLUSA and ACDI. |
| IHMA | Honduran agricultural marketing board. |
| INVA | The government housing authority in Honduras. |
| INVICA | Housing Cooperative Federation of Colombia. |
| INECEL | Ecuadorean National Electrification Agency. |

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|---|---|
| IRD | Integrated Rural Development. |
| KUD | Local (or primary) cooperative societies in Indonesia. |
| LCS | Local Crop Storage project in Rwanda being implemented by ACDI. |
| LARO | Latin American Regional Office of CUNA. Headquartered in Panama for six years, LARO provided technical assistance on a regional basis to Latin American credit union federations. It was the forerunner of COLAC. |
| NEA | National Electrification Administration of the Phillipines. |
| NRECA | National Rural Electric Cooperatives Association. |
| OPG | Operational Program Grant. An AID funding mechanism. |
| PUSPETA | Farmer Services Center in Central Java, which is receiving assistance from CLUSA. |
| REA | Rural Electrification Administration of the United States. |
| REB | Rural Electrification Board of Bangladesh. |
| REC | Rurual Electrification Commission of India. |
| SFO | Small Farmer Organization project in Bolivia, which ACDI assisted as a sub-contractor. |
| SINAP | The Savings and Loan Associations of Chile. |
| SSG | Specific Support Grant. An AID funding mechanism. |
| TSO | Technical Service Organization. A term used in the housing sector for a second or third-level organization that promotes and provides assistance to housing cooperatives. |
| UCS | United Cooperative Society in Egypt, an open cooperative organization which received assistance from CLUSA. |
| UNIPACO | Cotton marketing cooperative federation in Paraguay. |
| UNRISD | United Nations Research Institute for Social Development. |
| WOCCU | The World Council of Credit Unions. Formerly CUNA International, the World Council (or WOCCU) was formed in 1971 to serve as the international apex organization for the credit union movement. |