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A REVIEW OF IMPACT INFORMATION SYSTEMS OF NGO MICROENTERPRISE PROGRAMS

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FOREWORD

The Assessing the Impact of Microenterprises (AIMS) Project seeks to gain a better understanding of the processes by which microenterprise programs strengthen businesses and improve the welfare of microentrepreneurs and their households. In addition, it focuses on strengthening the ability of the U. S. Agency for International Development (USAID) and its partners to measure the results of their microenterprise programs. The project's core agenda includes desk studies, focused field research, three major impact assessments, and the development and testing of tools for use by private voluntary organizations and non-governmental organizations to track the impacts of their microenterprise programs. Further information about this USAID-funded project and its publications is available on the AIMS home page (http:\\www.mip.org).

This paper is one in a series that addresses specific issues. The studies are intended to inform the design and implementation of the focused field research, the three core impact assessments and the tools. Each core impact assessment will focus on a specific microenterprise program. Information will be obtained from program participants and a comparable group of non-participants in two main rounds of data collection, with a two year interval between the rounds. Complementary information will be gathered in qualitative interviews and from secondary sources. While this paper furthers the agenda of the AIMS Project, it is also intended to be of interest to others seeking to understand and document the impacts of microenterprise programs.

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LIST OF ACRONYMS

ACDI	Agricultural Cooperative Development International
AIMS	Assessing the Impact of Microenterprise Services
ATI	Appropriate Technology International
CRS	Catholic Relief Services
FC	Feed the Children
FFH	Freedom From Hunger
FOMMI	Programa de Fomento de la Microempresa en las Zonas Marginales
FHI	Food for the Hungry International
IAF	InterAmerican Foundation
IIS	Impact Information System
K-REP	Kenya Rural Enterprise Program
MEDA	Mennonite Economic Development Associates
MIS	Management Information System
MSI	Management Systems International
NCBA	National Cooperative Business Association
NGOs	Nongovernmental organizations
OICI	Opportunities Industrialization Council, Inc.
PACT	Private Agencies Collaborating Together
PH	Project Hope
PVOs	Private voluntary organizations
SAWSO	Salvation Army World Service Office
SC	Save the Children
SEEP	Small Enterprise Education and Promotion Network
SME	Small and Microenterprise Program (Egypt)
TNS	TechnoServe
TUP	Trickle Up Program
USAID	United States Agency for International Development
VITA	Volunteers in Technical Assistance

EXECUTIVE SUMMARY

This study is a review of the impact information systems of not-for-profit organizations that provide credit and/or other business development services to microenterprises in less developed countries. First, it reports on a survey sent to all organizations belonging to the Small Enterprise Education and Promotion Network (SEEP). The purpose of the survey was to identify the types of impact information systems currently in use or development and review their main features and utility. Impact information systems were broadly defined to include the following:

- An MIS or a separate impact tracking system with standardized indicators for all projects
- Regular impact monitoring without a standardized set of indicators
- A loan tracking system that can partially serve the purpose of impact assessment by allowing comparisons of data from initial applications for credit and subsequent applications by the same client
- Periodic impact assessments conducted for all major projects as part of evaluations
- Ad hoc special studies conducted at irregular intervals for selected projects only

The survey found that impact information systems are a relatively new phenomenon among NGOs and PVOs. There was considerable variation in the types of impact considered (economic, social, environmental, and institutional), level of analysis (enterprise, households, or communities), and the ways in which it was gathered. Quantitative methods were favored to track impacts, but some organizations also used qualitative methods. While there was strong agreement on the importance of impact assessment and most organizations currently gathered some information on impact, many respondents reported more weaknesses in their organizations' information systems than strengths. Several organizations were in the process of revising their systems.

The second part of this study compares key aspects of the impact information systems of a subset of SEEP members and several other organizations outside of the network. These systems were selected because they were thought to be representative, relatively well-developed, or instructive for other organizations seeking to establish or improve their systems. The systems were classified into three categories: 1) loan tracking systems, 2) comprehensive impact assessments, and 3) other specialized systems. The uses, breadth, and rigor of the systems and the types of impact indicators used were compared. To offer guidance to NGO and PVO microenterprise programs, the study concludes with recommendations on the importance of impact information systems, balancing costs and requirements, selection of indicators, data collection processes, data analysis and reporting, and staffing and training for implementation of the systems.

I. PURPOSES AND SCOPE OF THIS STUDY

This study reviews the impact information systems of nongovernmental organizations (NGOs) and private voluntary organizations (PVOs) working in microenterprise development. It was conducted as part of a series of conceptual and applied studies to inform the design of planned activities in the USAID-funded project, Assessment of the Impact of Microenterprise Services (AIMS). AIMS is a five-year project awarded in September of 1995.

The AIMS project is concerned with developing a better understanding of the processes by which microenterprise services strengthen businesses and improve the welfare of microentrepreneurs, their households, and their communities. The objective of the project is to strengthen USAID's ability to measure the results of its microenterprise programs through the following activities:

- Action research
- Three core impact assessments of major microenterprise programs
- Development of low-cost impact assessment tools for use by implementing organizations in monitoring and evaluation, and
- Provision of technical assistance services to USAID missions for the design and implementation of microenterprise impact assessment strategies.

The core impact assessments are intended to obtain definitive findings on the impacts that can be generated by major microenterprise programs. They will rely on state-of-the-art tools and techniques and will benefit from a relatively large amount of financial resources and time. The low-cost impact assessment tools will be designed to meet the continuing needs of microenterprise programs for cost-effective systems that are simple and workable for broad application. In a period of generally scarce funding resources for development assistance, donor-funded microenterprise programs may face greater pressure to demonstrate their impact. **Impact** refers to changes that can be reasonably attributed to the loans or other assistance provided.

Since many NGOs and PVOs involved in microenterprise programs are already collecting a lot of information on the impact of their microenterprise programs, a review of the existing practices is a logical place to start before new tools are developed. The member organizations of the Small Enterprise Education and Promotion Network (SEEP) were selected as the main frame of reference for the study. This network presently serves 41 leading NGOs and PVOs based in the U.S. and Canada that support or implement microenterprise development assistance. SEEP is also part of the AIMS project consortium.

This study[1] has three purposes: 1) identifying what SEEP member organizations are doing to assess the impacts of their microenterprise programs and finding out how the information is used, 2) conducting a more intensive review of the types of impact information collected by at least eight organizations with the most developed systems among the SEEP members or other programs based in less developed countries, and 3) drawing from this experience to provide guidance for organizations that do not currently have impact monitoring systems or are interested in improving their systems.

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[1]This was a small desk study with a budget of four person-weeks of work time for the authors. No funds were available for field travel. So that the findings would provide timely input for other AIMS activities, time was limited for communications with overseas organizations.

Initially, the focus of the study was going to be on management information systems (MIS) that included impact assessment components or could be modified to track some basic indicators of impact. **Management information systems** typically have the following characteristics: 1) regular and routine data collection at relatively frequent intervals; 2) standardization of the types of information collected; 3) inclusion of information on program activities and outputs; and 4) computerization. Loan tracking systems are a particular kind of MIS.

In designing this study, a discussion was held with representatives of the SEEP Working Group on Evaluation. It was quickly realized that many SEEP members did not have a formal MIS at all that tracked activities and impacts in a standardized way, but most assessed at least certain types of impacts in some way, even if they did not have a standardized system. Moreover, some organizations that had an MIS for loan portfolio tracking only collected the data needed to assess the financial sustainability of the credit program with minimal information that could be used to assess impact on borrowers. A few organizations had systems that went well beyond a traditional MIS to more rigorously and systematically assess program impact. Several different models for impact assessment were identified:

- An MIS or a separate impact tracking system with standardized impact indicators for all projects
- Regular impact monitoring without a standardized set of indicators.
- A loan tracking system that can partially serve the purpose of impact assessment by allowing comparisons of data from initial applications for credit and subsequent applications by the same client
- Periodic impact assessments conducted for all major projects as part of evaluations
- Ad hoc special studies conducted at irregular intervals for selected projects only

Except for the special studies, all of these models involve work carried out at some planned interval of time and provide information about changes that have occurred over the life of the program. In each of these models, baseline data on the client enterprises can be helpful in relating the magnitude of impact to program interventions. Some of the evaluations and special studies used comparison groups of non-clients to attribute impacts.

Because of the diversity in microenterprise programs and impact assessment methods, this study defined impact information systems (IIS) broadly to include the first four of the above models. An **impact information system** was defined as a set of regular activities that an organization carries out for impact data collection, processing, analysis, and reporting, with varying degrees of formal or standardized procedures and indicators. They are designed to provide information for program management purposes primarily, and to provide information over a sequence of data points within the life of a program. This report is concerned with assessment of enterprise, household, and community impacts as well as the tracking of outputs and activities that are often included in a management information system.

Following this introduction, the report is divided into four additional sections. The first

section describes the methods used in the study and the microenterprise programs included in the survey and the more intensive review of systems. The second section reports the findings of the survey and intensive review. The third section presents the conclusions and recommendations based on the findings. The fourth section contains annexes with the survey instrument; a list of perceived strengths and weaknesses of the impact information systems of surveyed programs; and, most notably, detailed descriptions of the systems included in the intensive review.

II. DESCRIPTION OF THE METHODS USED

The study followed a two-stage research design. The first stage consisted of a survey of all SEEP member organizations and a request for materials describing the impact information systems used in the microenterprise programs they implement directly or through project partners abroad. The second stage was a more intensive review of a subset of the identified systems that the team considered representative, relatively well developed, or instructive in at least one key respect.

A. The Survey of SEEP Member Organizations

To gain a better understanding of the prevailing impact assessment practices in microenterprise programs, the study began with a survey sent to all SEEP member organizations. The SEEP Network is an association of Canadian and U.S. non-profits engaged in microenterprise development on The South. They are partnered with hundreds of NGOs ranging from the leaders to the most recent entrants in the sector. Because of this, they represent a useful channel into understanding practice. It was addressed to the principal person within each organization responsible for monitoring, evaluation, or action research. The survey asked about the types of impact information collected, indicators, and procedures, methods for data collection and analysis, and uses of the information. Annex A contains the survey questionnaire, which included both multiple choice and open-ended questions.

The questionnaires were completed in writing by the respondents and submitted to the SEEP office for tabulation of the closed-ended questions. Responses were received from 27 of the 43 SEEP members. SEEP Network staff tallied the closed-ended responses for the bulk of the completed surveys and forwarded them to the authors who reviewed the open-ended responses and attachments. A few surveys arrived later and were added to the tallies by the authors.

The SEEP members listed below responded to the survey:

- ACCION-International*
- ACCION-US
- ADRA International
- Agricultural Cooperative Development International (ACDI)
- Appropriate Technology International (ATI)
- Calmeadow*
- Canadian Co-operative Association
- CARE-US
- Catholic Relief Services (CRS)*
- Feed the Children (FC)
- FINCA-International*
- FINCA-US
- Food for the Hungry International (FHI), Faulu Africa Loan Program
- Freedom From Hunger (FFH)
- Mennonite Economic Development Associates (MEDA)
- National Cooperative Business Association (NCBA)
- Opportunities Industrialization Council, Inc. (OICI)
- Opportunity International
- Private Agencies Collaborating Together (PACT)
- People-to-People Health Foundation (Project Hope)
- Salvation Army World Service Office (SAWSO)

- Save the Children (SC)
- SOCODEVI (Société de Coopération pour le Développement International)
- TechnoServe (TNS)
- Volunteers in Technical Assistance (VITA)
- World Vision Relief and Development Inc.
- World Relief

The organizations marked with an asterisk reported they did not currently have operating impact information systems.

This sample represents 61% of the SEEP membership (counting ACCION and FINCA once). While some organizations may have been unable to respond in time due to travel or work schedules, the authors believe that many that did not respond lack well developed impact information systems for microenterprise programs.

B. Detailed Examination of a Subset of Systems

The authors selected a subset of impact information systems for more detailed review based on the SEEP survey, knowledge of other programs in less developed countries, and consultations with key representatives of the SEEP Network, Management Systems International, and USAID. Systems were selected because they were thought to be representative, relatively well-developed, or instructive for other organizations seeking to establish or improve their systems. The systems of the organizations listed below were chosen:

- ACCION-US
- Appropriate Technology International
- Programa de Fomento de la Microempresa en las Zonas Marginales (FOMMI) -- El Salvador
- Food for the Hungry International/Faulu Loan Program -- Kenya
- Freedom From Hunger
- Mennonite Economic Development Associates, Prisma Project -- Bolivia
- National Cooperative Business Association-Small and Microenterprises Project -- Egypt
- Save the Children
- TechnoServe

Partial information was obtained on the following programs' systems:

- ADEMI -- Dominican Republic
- FINCA-USA
- Kenya Rural Enterprise Program (KREP)
- Opportunity International
- Trickle-Up
- World Vision

There was considerable diversity in the strategies and approaches used by the above organizations to assist microenterprises. Most provided credit in at least some of their microenterprise programs. The range spanned organizations that 1) followed minimalist credit

approaches, 2) generally combined credit with other types of services, and 3) emphasized business development services more than credit. Many of the organizations focused on economic impact, poverty alleviation, or employment, but some had a mandate to focus on social outcomes such as empowerment, improved health, educational progress, or environmental quality. For a few organizations, the institutional capacity of local organizations to assist microenterprises, and changes in public or private sector policies affecting microenterprises, were of particular concern.

Those organizations whose systems were selected for more detailed analyses were asked to submit data collection instruments, reports, and other information on their systems. In numerous instances, the available information was incomplete. For example, few organizations described the specific methods used for analyzing data or attached formats showing how the results were reported. In some cases, the authors sought additional documentation or clarifications from organization representatives.[2]

[2]In addition, supplementary information was requested from the Nicaraguan APPLE (The Anti-Poverty Lending Project) urban microenterprise program, ACDI's RCID (Rural Cottage Industries Development) system, PRODEM (Fundaci \n pour la Promoci \n y Desarrollo de la Microempresa) , and ADEMI but had not yet been received at the time this report was completed. Moreover, the published information on ADEMI that was reviewed may be out of date. The team also identified other impact information systems that may warrant review: Project Hope-Honduras, Working Capital, Grameen Bank, Muntinlupa Development Foundation microcredit program (Philippines), Swedish International Development Agency, Zambuko Trust in Zimbabwe, the South Africa Fund, and Kenya Women's Finance Trust. The findings and recommendations contained in this study are based on the limited information received at the time.

III. FINDINGS AND ANALYSIS

A. Results of the Survey of Seep Members

Twenty seven programs responded to the survey, providing information about *what* impact information their organizations track, *how* and *when* they collect data, how it is analyzed, and *how the information is used* to improve programming. Impact assessment systems are a relatively new phenomenon; all but one of the current systems used by the responding organizations were adopted in the 1990s and most in 1993 or later (the one exception has reportedly been in use for ten years).

About 12% of the respondents reported that their organizations' impact information systems were being developed, revised, or pilot tested at the time. Several organizations= responses pertained to a particular project or regional program that had implemented an impact information system, rather than the organization as a whole. Many respondents expressed an interest in learning more about other impact information systems to improve those used by their own organization.

The survey found that 88% of the organizations track economic, social or environmental impact of at least some activities. Microenterprise programs may have impacts at a variety of levels, but do not necessarily address all of these levels, as shown in Table 1. SEEP member organizations are most likely to track impacts on the enterprises directly assisted and to a lesser degree, the owners and workers of these enterprises and their families.

Table 1 Level of Impacts Tracked by SEEP Member Organizations

Level of Impact	N (out of 27)	Percent
Enterprises directly assisted	16	70
Owners and workers of assisted enterprises	11	48
Households of owners and workers	9	38
Other enterprises benefiting indirectly	4	13
Villages and communities	3	17
Consumers	2	8
Capacity of local organizations	2	8

About 78% of the SEEP members track outreach (the number of participating enterprises or producers). In measuring economic impact, 48% estimate the quantity of goods and services sold or gross income, 48% look at employment, 46% try to determine changes in assets (the capital stock of producers or households), 39% estimate the net income of enterprises (profits), and 17% did not specify the specific economic indicators used.

The types of social impacts of interest to the organizations include health status of participants (26%), empowerment (26%), nutritional impacts (26%), education (22%), housing and material goods (22%), and water supply and sanitation (5%). Environment/natural resource impacts are addressed by 17% of these organizations.

The impact indicators used are predominantly quantitative (78% of the organizations), but 56% also rely on qualitative indicators. Of those relying on quantitative data, two-thirds set targets for achieving one or more quantitative indicators and nearly nine-tenths disaggregate at least some of the data by gender.

Some of the systems are primarily intended for routine monitoring while others are more oriented toward periodic evaluation, but many serve both purposes to some degree. The distinction here is that **monitoring** is usually more frequent, routine, and less extensive in what is examined. Monitoring focuses on measuring progress in carrying out planned activities and achieving targeted outputs, but may also collect some information on impact that is relatively easily obtained. It is often done by project staff as part of their regular reporting. **Evaluations** typically are more intensive efforts that are conducted periodically, but less frequently than monitoring. Evaluations usually assess impact more thoroughly and may consider implications of the existing project design. They often involve external evaluators instead of or in addition to project staff.

Midterm and final evaluations are done by most of the microenterprise programs or their donors. Roughly half of the organizations that did midterm and final evaluations also do some type of impact monitoring annually or more frequently. Often, however, monitoring is not done in a systematic and consistent way. Most of the U.S.-based organizations that have a decentralized relationship with their own field offices or separate partner organizations do not monitor impacts with a common set of indicators or standard approach to data collection and analysis across all of their microenterprise programs.

Table 2 shows that the sources of data on enterprise and household impacts vary widely across organizations. Furthermore, many organizations noted that the data sources varied across their projects. In particular, baseline studies are not always done for all projects. Some of these programs specified that they obtain some impact information through group meetings between field officers and borrowers. Other methods used by at least one of the organizations include program service delivery records; enterprise records; client self-reporting on forms; informed observation or measurement; staff estimates and extrapolations; sample surveys; focus groups; and key informants such as buyers, suppliers, workers, or competitors.

Table 2 Sources of Data on Enterprise and Household Impacts

Source of Data	N (out of 27)	Percent
Baseline studies	13	57
Initial applications for financing	14	61
Applications for renewal or repeat financing	13	57
Site visits	14	61
Sample surveys or rapid appraisals	10	43
Mid-term evaluations	13	57
Final evaluations or special studies	14	61
Program records	13	57
Staff estimates of impact	7	30
Business plans	5	22

In part, Table 2 reflects differences in program approaches. Not all organizations engaged in microenterpise deliver credit. In addition, those that engage in village banking do not collect loan applicaton forms from individual borrowers. That informaton is maintained at the

individual bank level.

Sixty percent of the organizations that assess impacts compile the information onto a computerized database. Of these organizations, 28% have a separate computerized database for impact information and 72% have a management information system that combines impact information with other information such as program activities, funding, expenditures, and loan portfolio performance. In a few cases, only some of the impact information gathered is computerized. Roughly 23% of the organizations manually compile impact information from various programs and 13% keep impact information on paper in files at the headquarters or field program offices. Counter to the trend, one organization that previously used a computerized spreadsheet to track results against targets quarterly and year-by-year has switched back to a manual system due to changing project types and partners.

Table 3 provides information about when organizations collect data. Many organizations have no fixed system or timetable for impact assessment.

Table 3 Frequency of Impact Data Collection

Period of Time	N (out of 23)	Percent
Monthly or more often	6	26
Quarterly	5	22
Twice a year	3	13
Annually	6	26
Less than once a year	2	9
Other or variable	2	9

As indicated in Table 4, SEEP member organizations use information for a variety of purposes, including planning, management, and policy decision making. Information is most frequently used for changing the design or implementation of existing projects and for designing new ones.

An estimated 87% of the organizations prepare reports on impact results for use by others. In many cases, organizations produce several different kinds of reports for internal and external use. Some reports consist of tabular data or graphs while others include a full narrative or bullet points. Sometimes, separate reports are produced on the loan portfolio performance and on impacts. Only a few organizations provided samples of their impact reports for review. Table 5 lists the distribution of the impact reports.

Table 4 Uses of the Information

Uses	N (out of 23)	Percent
Identifying the need for changes in the design or implementation of existing projects	14	61
Designing new projects/programs	10	43
Making decisions on the allocation of resources	5	23
Strategic planning for the organization	5	23
Making decisions about approaches for microenterprise programs	5	23
Determining the size/location of microenterprise program	4	17
Making decisions about personnel tenure or compensation	3	13
Selecting or changing partner organizations	3	13

Table 5 Distribution of Impact Reports

Distribution of Impact Reports	N (out of 27)	Percent
Headquarters	19	81
Field offices or partner organizations	17	75
Donors	14	63
External distribution	6	25

Tables 6 and 7 categorize the respondents' perceptions of the strengths and weaknesses of their organizations' impact assessment systems respectively. The fact that an item was not brought up by a particular organization does not mean it is not relevant since most only listed a few points. Also, what some considered a strength others may have perceived to be a weakness. Nevertheless, it is interesting that the list of perceived weaknesses is much longer than the list of strengths.

Table 6. Perceived Strengths of Impact Information Systems

Perceived Strengths	N (out of 23)	Percent
Simple/low cost data collection processes are used.	5	23
Data are collected in a consistent fashion.	2	8
Systems increased the use of quantitative measures.	2	8
A standard set of indicators allows comparisons across programs.	2	8
Impact assessment is linked to automated management or financial data.	2	8
Narrative progress reports complement the quantitative data.	1	4
Findings have been helpful in country office's strategic planning.	1	4
Electronic data exchange facilitates communication of findings between headquarters and field offices.	1	4
Information is available on all clients served.	1	4
Participatory techniques are used.	1	4
Findings have raised the profile of microenterprise work within the organization.	1	4

The system allows use of in-depth special studies.	1	4

Table 7. Perceived Weaknesses of Impact Information Systems

Weaknesses	N (out of 23)	Percent
Insufficient rigor or reliability of data.	7	30
Desired information is not always obtained.	5	22
Lack of standard indicators or formats	5	22
Difficulties in getting timely compliance from field offices or partners.	5	22
Monitoring is not done regularly.	5	22
Inadequate aggregation of data across programs.	4	17
A relatively large expenditures of resources is required.	4	17
Some important types of impacts are not well addressed.	3	13
Attribution of impacts to programs is difficult.	2	8
Selection of the items measured may bias program design and field staff performance.	1	4
Group meetings are not suitable for gathering information on households.	1	4
Data are only obtained through initial and repeat loan applications.	1	4
Insufficient pretesting of data collection instruments.	1	4
Evaluation requirements are inconsistent.	1	4
Impact information is not tied to the level of effort in project activities.	1	4
Much adaptation of data collection instruments is necessary for successful use.	1	4
Considerable training is needed for successful application.	1	4

B. Comparison of Selected Systems

Annex B contains detailed descriptions of the impact information systems of seven organizations and more limited information on another seven organizations. This section compares key characteristics of the ten impact information systems selected for a more intensive review. These characteristics include the purposes (whether monitoring project activity, assessing impact, or both), uses in decision making, breadth, types of tools used, and rigor.

To avoid comparing systems with very different purposes and scopes, the ones selected were classified into two categories: 1) loan tracking systems, and 2) more comprehensive impact assessments. Organizations tracking more than financial impacts were classified under comprehensive impact assessment systems. An example is Freedom From Hunger, which monitors health education outcomes in its microenterprise credit programs. Systems with a greater focus on non-enterprise development objectives were placed in the third category.

The comparisons were derived from the surveys filled out by representatives of the organizations, follow-up discussions with them, and the authors' review of materials provided by the organizations. It was difficult to get information on the costs of developing and implementing the various impact information systems since the accounting and staff timesheet systems used by many organizations did not track this.

The various programs used a wide variety of indicators and often measured similar types of impacts in different ways. Even if a program's indicators only covered a limited range of impacts or the tools and techniques used to gather the information was not standardized, certain aspects of them may be useful in designing those for another program.

1. Loan Tracking Systems

Table 8 compares the characteristics of the impact information systems based on loan tracking. The loan tracking systems are mainly used to monitor programs. Most of these systems are concerned with changes in the client enterprises and some also look at selected impacts on the households of

enterprise owners. One organization does not track income changes in client enterprises; it focuses on employment changes. Loan tracking systems only partially serve the purpose of impact assessment as comparison groups are not included, and they are not intended to address broader community impacts.

Four of the six organizations reported that loan tracking systems have provided guidance for changes in program design and two used them in making strategic planning and personnel decisions. Only one organization reported using them in resource allocation among different programs of the organization or in selection or changes of partner organizations.

Data for these loan tracking systems is generally gathered at least once a year, but one organization stated it updates the system two to three times a month. Another organization gathers data at the end of each loan cycle. In all cases, project field staff (loan officers or extension officers) are involved in collection of the data. One organization hires outside experts to supervise the field staff in these efforts and another relies on some self-reporting by applicants for initial and repeat loans. All of the loan tracking systems yield longitudinal data. Even simple loan tracking systems report key indicators separately for men and women; this increased gender sensitivity is a change over the prevailing practice a decade ago.

Gross enterprise income measures are included in some loan tracking systems, but the frequency of measurement varies considerably. Some also report net enterprise income. Changes in business assets are frequently tracked, although some limit this to principal fixed capital assets.

The number of workers in client enterprises is often reported, but some loan tracking systems do not distinguish between full-time and part-time or seasonal employment. Less commonly, total wage payments are recorded.

The loan tracking systems do not devote much attention to financing obtained from nonprogram sources. Yet, if client enterprises have received other financing during the monitoring period and this is not accounted for, the impacts of the program being tracked may be overstated. Similarly, the effect of credit may be exaggerated if the program provides other business development services.

Loan tracking systems have dealt with enterprise sustainability in a limited way by identifying whether the clients are still in business and operating profitably during the monitoring period. Yet, the duration of monitoring is usually limited to the repayment period or loan cycle. The sustainability of the credit program itself is usually a major focus of loan tracking systems.

Table 8 Characteristics of the Loan Tracking Impact Systems

	ACCION-USA	ADEMI	FINCA-USA	FOMMI	NCBA (SME-Egypt)	OPPORTUNITY INTERNATIONAL
PURPOSES, TIMING, AND USES:						
Monitor programs	Fully	Fully	Fully	Fully	Fully	Partially
Assess impact	Partially	Partially	Partially	Partially	Partially	No
Frequency of updating	Annually	2-3 times a month	Each loan cycle	---	Annually	Quarterly
Time system has been in use	Less than 2 years (historical data entered back to 1991)	---	---	---	1 year	1 year
Principal users	HQ and field staff	Field staff and clients	HQ and field staff	Program staff and partner staff	Field staff and management	HQ staff and partner organizations
Secondary users	---	---	---	---	---	---
USES:						
Changes in program design	Yes	---	---	Yes	Yes	Yes
Resource allocation	No	---	---	---	No	Yes
Strategic planning	Yes	---	---	---	---	Yes
Design of new projects & programs	No	---	---	---	Yes	No
Decisions about compensation or personnel	Yes	---	---	---	---	No
Selection & change of partner organization	No	---	---	---	No	Yes
BREADTH:						
Clients (assisted enterprises)	Fully	---	Fully	Fully	Fully	Partially
Households (of owners & workers of assisted enterprises)	Partially	---	Partially	Partially	Fully	No
Other enterprises (not directly assisted)	No	---	No	No	No	No
Communities	No	---	No	No	No	No
TYPES OF TOOLS:						
Quantitative	Yes	---	Yes	Yes	Yes	Yes
Qualitative	Yes	---	No	No	Yes	No

Table 8 (continued)

RIGOR:						
Computerized system	Yes	---	Yes	Yes	Yes	Yes
Types of data collectors	Loan officers supervised by outside experts	Loan officers	Loan applicants and loan officers	Project promoters	Extension officers	Field staff
Longitudinal data collection	Yes	---	Yes	Yes	Yes	Yes
Data disaggregated by gender	Partially	----	No	Yes	Yes	Yes
Sociodemographic data collected	Yes	Yes	Yes	No	Yes	No

Some loan tracking systems gather information on gross or net household income and changes in productive assets owned by the household. In some cases, they appear to equate change in enterprise income with changes in household income, rather than examine household income (and all its sources) directly. Household expenditures are not usually included in loan tracking systems.

Table 9 illustrates the kinds of indicators currently in use in loan tracking systems. All loan tracking systems monitor the number of client enterprises and some classify the enterprises by certain key characteristics. Enterprises that benefit indirectly such as the raw material suppliers of the client firms are not considered.

Table 9 Types of Impact Indicators For Loan Tracking Systems

A. Enterprise Level

Type of Impact	Indicator	How Defined/Question Used
Number of participating enterprises	Number of borrowers (all)	Self explanatory
Number of producers	Number of borrowers and number of workers (ACCION-US, ADEMI, FOMMI, MEDA, SME)	Self explanatory
Gross income	Monthly revenues (ACCION-US, ADEMI, FOMMI, FHI-Faulu, SME)	Value of sales last month (SME)
Net income	Monthly profits (ACCION-US, ADEMI, FOMMI); Monthly take-home income (ACCION-US); Enterprise net revenue (SME, TUP); Financial viability (MEDA)	Expenses last month with categories provided (SME); Increase in income from last loan (SME); Checklist for income and expenditures (ADEMI); Calculation of profit (ADEMI); Sales and expenses (FHI-Faulu)
Change in assets	Total value of business assets (ACCION-US); Client net equity (MEDA); Savings (ADEMI); Asset accumulation (FHI-Faulu); Machinery and equipment; Assets, liability, capital (ADEMI); Inventory of products; Debt (FHI-Faulu)	Value of equipment accounting for condition and net of debt (ADEMI); Cash holdings; Net worth; Accounts receivable (FHI-Faulu)
Employment	Number of workers (ACCION-US); # of employees (ACCION-US, SME, ADEMI, FOMMI, SME); Wages of full-time employees (SME); Net number of jobs created or saved and hours; Salary conditions, and benefits; Program cost per job, potential for additional jobs (MEDA)	Permanent, temporary, and seasonal workers disaggregated by gender and type of employment (ACCION-US); Full-time and part-time current and projected employees by gender (ADEMI); Temporary workers last month (SME)
Enterprise management practices	Business skills (TUP)[3]	Subjective assessment of improved business skills (TUP)
Financing	Change in source of financing (TUP)	Loans received since the grant (TUP)
Sustainability of enterprises	Enterprises receiving no subsidized interventions and remaining in profitable operation (MEDA)	Time before organization can exit; Financial viability of enterprise (MEDA)

[3] Unlike the other organizations included here, Trickle Up's methodology consists of a one-time small grant rather than a loan or series of loans. Their monitoring, however, is tied to the disbursement of grant payments, and in that way, is similar to loan tracking systems.

Table 9 (continued)

B. Household Level

Type of Impact	Indicator	How Defined/Question Used
Gross income	Absolute income (ACCION-US, FHI-Faulu), Relative income (ACCION-US)	Household income (ACCION-US, FHI-Faulu); Client median income as a percent of US median income; Percent of clients under US median income; Percent of clients in poverty; Percent of clients with income below 125% of poverty line (ACCION-US)
Net income	Percent of household income from enterprise (TUP)	---
Expenditures	Uses of increased income (SME)	How did you use this loan/increase in income? (SME)
Change in productive assets	Purchases of productive durable goods and equipment (FOMMI); property owned (FHI-Faulu); savings (FHI-Faulu, TUP)	May merge enterprise and household assets (FOMMI)
Health (nutrition, water supply, sanitation)	Improved nutrition (PH); health status (PH); reported morbidity (FOMMI); greater perceived basic needs satisfaction (TUP)	Objective measures (PH, FOMMI); Subjective perceptions (TUP)
Educational progress	Educational level of client (ACCION-US); Number and percent of children in school (FOMMI, TUP)	Self-reported (FOMMI)
Housing/material goods consumed	Whether housing has been enlarged or improved (FOMMI)	Self-reported (FOMMI)
Empowerment	Perceived quality of life (FOMMI)	Self-reported (FOMMI)

2. Comprehensive Impact Assessment Systems

Table 10 provides information about the more comprehensive impact assessment systems in use by four organizations. At the time of this study, Save the Children was just beginning to test its system in the field. Freedom from Hunger and TechnoServe were in the process of making major modifications to their impact information systems.[4] Appropriate Technology International's system had been in use for three years and had already undergone some refinements in the course of implementation.

Most of the organizations with comprehensive impact assessment systems also provide a wide range of services to microenterprises beyond credit and have broader objectives than

[4]In both cases, the intention is to simplify the systems being used. TechnoServe seeks to establish a core set of indicators that all programs should track. Freedom from Hunger seeks to reduce the amount of information callected regularly due to concerns about data reliability. Their interest is to focus more on special studies to obtain greater depth with greater reliability.

microfinance institutions. For Appropriate Technology International (ATI) and TechnoServe, financing is not the primary focus of their microenterprise programs although it is often provided or arranged in conjunction with other interventions. ATI and TechnoServe express strong interests in the economic impacts on other enterprises not directly assisted. ATI also is interested in environment/natural resource impacts. Save the Children and TechnoServe help develop community infrastructure in some projects. Freedom from Hunger and Save the Children have strong mandates for improving nutrition and health.

Table 10 (continued)

Table 10 The Characteristics of Comprehensive Impact Assessment Systems

	Appropriate Technology International	Freedom From Hunger	Save the Children	TechnoServe
PURPOSES, TIMING, AND USERS:				
Monitor programs	Fully	Fully	Fully	Fully
Assess impact	Fully	Fully	Fully	Fully
Frequency of updating	Annually	Monitoring: Quarterly; Impact: irregularly	Annually or more often (determined by the field)	Quarterly (semiannually proposed)
Time system has been in use	3 years	Less than 1 year	Still in testing stage	Monitoring: 2 years; Impact: 4 years
Principal users	HQ, field staff, and USAID	Field staff and partner donors	HQ, regional, national, and local staff	HQ & field staff
Secondary users	Donors and development professionals	Academicians	Donors & development professionals	---
USES IN DECISION MAKING:				
Changes in program design	Yes	Yes	Yes	Yes
Resource allocation	Yes	No	No	Yes
Strategic planning	Yes	Yes	No	Yes
Design of new projects & programs	Yes	Yes	Yes	No
Decisions about compensation or personnel	Yes	No	No	No
Selection & change of partner organization	Yes	No	No	No
BREADTH:				
Clients (assisted enterprises)	Fully	Fully	Fully	Fully
Households (of owners & workers of assisted enterprises)	Partially	Fully	Fully	Partially
Other enterprises (not directly assisted)	Partially	Partially	No	Partially
Communities	Partially	Partially	Partially	Partially
TYPES OF TOOLS:				
Quantitative	Yes	Yes	Yes	Yes
Qualitative	Yes	Yes	Yes	Yes

Table 10 (continued)

RIGOR:				
Computerized system	Yes	---	Yes	Yes
Types of data collectors	Consultants, field staff, and HQ staff	Field staff and consultants	Consultants and field staff	Field staff and consultants
Longitudinal data collection	Yes	Monitoring: yes; Impact: no	Yes	Monitoring: yes; Impact: no
Data disaggregated by gender	Yes	Yes	Yes	---
POPULATION FOR DATA COLLECTION:				
Clients	Yes	Yes	Yes	Yes
Nonclients within the same communities	Yes	Special studies only	Yes	Yes, special studies only
Nonclients from nonprogram communities	No	No	Yes	No
Social and demographic data collected	Yes	Yes	Yes	Yes

Each of the comprehensive impact information systems reviewed is used to monitor programs, assessing whether or not program objective are being met. All are intended to assess impact. The principal users of the information are headquarters and/or field staff and project partners. Most of the organizations also use the results from impact information systems to influence outside entities such as donors and development professionals. One organization cited communities in project areas as secondary users of the information.

Results generated by the impact information systems often lead to changes in program design, strategic planning and design of new projects and programs. Two use the information to make decisions about resource allocation; only one about compensation, personnel and the selection of partner organizations.

Most commonly, data for comprehensive impact information systems comes from program records and client surveys. Other sources of information include focus groups, loan applications and renewals, and key informant interviews. All rely on both quantitative and qualitative data, although the mix of methods varies.

Few programs have a strong mix of impact indicators at both the enterprise and household levels, although some were doing a considerable amount of monitoring at one of these levels. All the systems address impacts on client enterprises more or less completely, and at least partially, impacts on the households of owners and workers. Usually, a more complete enumeration of the producers directly and indirectly associated with the assisted enterprises is attempted. Some report the gross income gains of assisted enterprises, which are easier to measure than net income, and reflect the income gains of workers and raw material suppliers (to the extent that imported inputs are not used). Others focus only on the net income gains of the assisted enterprises.

Table 10 (continued)

Changes in b

usiness assets are frequently reported, but some limit this to principal fixed capital assets. All consider some broader impacts within the local economy: this is tracked in the form of backward and forward linkages to related enterprises not directly assisted by the programs. The organizations that help develop local infrastructure devoted more attention to general impacts on the communities. Only one of the organizations monitors environment or natural resource impacts.

Impacts on employment in the assisted enterprises is considered in most of these systems although most do not account for displacement of labor in other enterprises. Several tracked the assisted enterprises' access to nonprogram financing and a few looked for changes in enterprise management practices. Few of the systems directly addressed enterprise sustainability, except insofar as the enterprises were continuing to operate profitably during the monitoring period. To ascertain long-term sustainability, two organizations plan to continue some impact monitoring after project assistance has ended.

Most do not measure household income separately from the income generated by the enterprises directly or indirectly assisted. Relatively few include changes in household productive assets or housing and material goods consumed. Several systems did explicitly address changes in households' access to health or educational services, or their health and educational status. Empowerment indicators are included in a minority of the systems. Tracking institution building was a major element in one organization's system and a few looked for impacts from community infrastructure or services.

All of these organizations hired consultants to design and/or implement specific data collection activities. In some cases, field staff are also used to collect data, either by themselves or with supervision by external consultants or headquarters staff. Four of the organizations regularly collect some longitudinal data.

Table 11 reports on the kinds of indicators currently in use in comprehensive impact assessment systems.

Table 11 Types of Impact Indicators Collected for Comprehensive Impact Assessment Systems

A. Enterprise Level

TYPE OF IMPACT	INDICATOR	HOW DEFINED/QUESTION USED
Number of participating enterprises	Cumulative number of enterprises participating this year; Number of enterprises with 0-10 employees vs. 11+ employees; Number of enterprises in the formal and informal sector (ATI); Enterprises receiving loans (FFH, SC), Clients (TNS)	Participating enterprises received project assistance this year or in an earlier year (ATI).
Number of producers	Number of enterprises producing and using technology; Individual and group owners and workers by gender; Raw material suppliers and other producer participants (ATI), Direct and indirect beneficiaries (TNS)	Producers earning at least $20/year in incremental income as a result of the project; recipients of training or finance who do not meet the minimum income rule are excluded; just the producers themselves and not all of their household members (ATI). All household members counted as beneficiaries, but not clients (TNS).
Gross income	Monthly revenues (SC); Quarterly revenue (TNS, FFH, ATI); Annual gross value of final goods and services (ATI)	Total gross revenues from operations at baseline and for the previous and next quarters; Units produced and unit price estimated for previous and next quarters (TNS); Total value of producer cost savings plus producer income gains for final goods and services, including the market value of goods consumed within the household (ATI)
Net income	Enterprise net revenue (FFH, SC, TNS); Gross margin; Net Profit/Loss (TNS); Profitability of loan (FFH)	Gross revenues minus cost of goods sold minus other production expenses ; Net income with and without interest costs (TNS); Self-reported for most recent loan cycle (FFH)
Valued Added	Net enterprise income plus payments to labor and farmer/suppliers (ATI, TNS)	Approximated by gross income if there are no major imported inputs
Change in assets	Total value of business assets (SC, TNS, FFH); New fixed capital investment for all enterprises; New working capital investment for formal sector enterprises only; Value of inventory of products (ATI)	Total value of enterprise assets (TNS); land, facilities, and tools; Cash, raw material, goods in process, and inventory (SC); Total value of equipment and tools purchased this year plus other fixed capital investment (ATI)
Employment	Number of employees by gender (ATI, SC, TNS); wages of FT employees (TNS); Total number of displaced workers by gender (ATI)	Workers by gender (ATI) Full-time workers by gender (TNS); Value of wages and benefits (TNS); Change in full-time paid workers; Change in child-labor (SC)
Enterprise management practices	Changes in accounting inventory system, and personnel policies; Evidence of group self-management (SC)	Subjective assessment
Financing	Changes in sources of financing (SC); Increased access to formal financial institutions and other credit programs (ATI, SC, TNS)	Access measured by financing received from these other sources

Table 11 (continued)

Sustainability of enterprises	Enterprises receiving no project assistance or covering the full cost of the assistance and remaining in profitable operation (ATI); Cost recovery from enterprises (ATI, SC, TNS)	Number of sustainable enterprises, their associated producers, and producer income gains (ATI)

B. Household Level

CATEGORY	INDICATOR	HOW DEFINED/QUESTION USED
Net income	**---**	**May have been merged with enterprise income**
Consumer savings	**Number of consumer households saving money as a result of a project and the value of the savings (ATI)**	**Consumer savings may be due to lower prices for a good or service or increased efficiency of use and do not represent total expenditures on the good or service (ATI)**
Health (nutrition, water supply, sanitation)	**Potable water (TNS); Medical facilities (TNS); Self-reports on whether client has discussed/learned valuable health/nutrition information; Self-reports on health/nutrition practices clients tried/told others about Health/nutrition knowledge; Diet; Food security (FFH); Actual nutritional status (FFH, SC)**	**Adequate potable water source in community (TNS); Greater medical facilities in the community (TNS); Self-reporting of whether client and family were able to eat more and better food; Health/nutrition practices borrowers have tried/told others about (FFH)**
Educational progress	**Estimated illiteracy rate in project area (TNS); Number and percent of children in school; Gap between male and female child enrollment rates (SC); School availability (TNS)**	**Adequacy of school in community (TNS)**
Expenditures	**Change in amount spent on food, clothing, and other basic needs (FFH, SC); Increased spending on purchases for self; Value of last item purchased exclusively for children from enterprise profits (SC); Uses of increased income (FFH)**	**Reported rather than measured**
Housing or other material goods consumed	**Electricity (TNS)**	**Access to electricity (TNS)**
Empowerment	**Solidarity; Relations in community; Child care; Food security; Significant changes in communities; Whether borrower had to take a loan from another source to pay back program loan (FFH)**	**Members discussing association problems, taking action, and assisting one another with family emergencies or repayment difficulties; Compatibility of activities with child care (FFH) Time allocations of participant and spouse; Household decision making; Membership and leadership in community organizations; Aspirations for boys and girls; Evidence of group self-management (SC)**

Table 11 (continued)

Table 11 (continued)

C. Community Level

CATEGORY	INDICATOR	HOW DEFINED/QUESTION USED
Environment or natural resource impacts	Positive and negative effects on environment/natural resources; Value of impact (ATI)	Quantity of environmental impact or natural resource use without the project minus that project with the project ; valued in monetary terms where possible (ATI)
Policy impact	Regulatory recognition of programs (SC); Changes in policies affecting microenterprises (SC, ATI)	---
Community infrastructure or services	Change in access to electricity, water, sanitation services (SC, TNS)	---

IV. CONCLUSIONS AND RECOMMENDATIONS

This section of the paper provides conclusions and recommendations on impact information systems for NGO and PVO microenterprise programs. Separate discussion is provided of loan tracking systems and more comprehensive impact assessment systems. Which of these two types of system is most appropriate depends on the nature of the organization, the type of microenterprise assistance provided, available resources, and the organization's information needs. This section begins with a discussion of the core questions impact-oriented management information systems should contain. It then addresses selection of impact indicators, data collection processes, data analysis and reporting, and staffing and training for system implementation. The paper concludes with some general principles for balancing costs and requirements of the system.

A. Core Questions for Microenterprise Impact Information Systems

As discussed earlier, both types of system can serve the broad purposes of informing management decisions and communicating outcomes to donors and other interested constituencies. Whether the implementing institutions are microfinance programs operating within a financial systems perspective, or development organizations with broader missions, they have these needs. The more specific purposes that each can achieve -- and the questions that it can answer-- differ, however, due to characteristics related to organizational mission, program strategy, client/business typology, and the level of investment that can be made. To illustrate:

- What PVOs/NGOs think is important to track varies widely, and this is a function of organizational mission (ie, to what extent are social goals articulated), of the aims of the enterprise development efforts themselves (whether poverty alleviation, employment, economic development, etc.); and of their commitment to evaluation. This leads to different choices regarding what is considered essential to know.

- Microfinance methodologies clearly lend themselves to data gathering in association with the loan process. Loan tracking systems, operated directly as a part of the loan approval/repayment process -- or with a small add-on -- can only carry a minimum information load. The type and amount of data is constrained by the format, and by the time constraints of the primary data collectors, normally the credit officers. This is valued by program operators who favor minimalist, cost-effective operations, and forces institutions to select only what they perceive to be the most critical data. The challenge is to find those key pieces of client and business data needed for effective loan operations that can also serve as markers of impact. In considering these issues, it is important to recognize that the loan application is used by only a portion of financial services programs (village banking programs do not); and business development programs do not use them.

- The level of enterprise supported also makes a significant difference in the quality of the information that can be captured regarding the status of the business and the change in its characteristics over time.

- Finally, cost will affect the level of effort substantially.

With these considerations in mind, it follows that there are only a few core areas that all impact information systems can and should address. These relate to:

Outreach and Scale:

Who are the clients being served and what is the magnitude of numbers reached? What is the gender distribution? What is their poverty level (household), and how does that level appear to change with program participation?

Business Impact:

What is the nature of their (assisted) businesses, and how do they change? What changes become apparent with duration in the program?

Client Satisfaction:

What is the type and level of service provided to clients? To what extent do program services appear to meet their critical needs and contribute to positive changes that program operators seek? To what extent are services not contributing to the desired results?

In addition to these core questions, more comprehensive systems can show whether 1) the services are reaching the intended client groups and generating enough economic gains to justify their cost, 2) economic productivity is growing or income gains to one group are occurring at the expense of other groups; 3) certain types of nonfinancial services are more effective than others; 4) the relative importance of nonfinancial services and credit; 5) program participation and drop-out rates; 6) client satisfaction rates; and 7) growth in production and employment.

B. Selection of Impact Indicators

Other desk studies in this series produced for the AIMS project discuss the general conceptual and practical problems in measurement of impact at the enterprise and household levels. These issues include understanding the mix of economic activities in the household (Chen, Dunn, and Day 1996), defining assets (Barnes 1996), estimating debt (Dunn 1996) , how households deal with risk (Dunn 1996), and measuring income (Inserra 1996). Sebstad and Chen (1996) reviewed studies of the impact of microenterprise credit and Gaile and Foster (1996) examined methodological approaches for such studies. The extensive findings and conclusions of these studies cannot be repeated here, but it is important to note that assessment of the impact of microenterprise programs can be quite complicated and this has important implications for the selection of indicators, especially for measuring income gains.

Most of the common problems in the selection of indicators are similar for loan tracking systems and comprehensive impact assessment systems. Table 12 presents some specific issues and problems encountered in indicators used by microenterprise programs reviewed in this study, and that relate to the areas of client outreach and business impact.

Table 12 Issues and Problems Encountered in Use of Impact Indicators

A. Enterprise Level

Type of Impact	Issues/Problems Encountered
Number of participating enterprises	Number of clients participating is easily monitored.
Number of producers	The number of producers benefiting may be broader than the clients directly assisted by the program.
Gross income	Gross income is easier to monitor accurately than net income, but is a less valid measure of the impact on the client, although it also captures income gains to labor and raw material suppliers.
Net income	It may be difficult to estimate the net income for informal sector enterprises that do not keep complete written records.
Change in assets	Assets are relatively easy to document for enterprises with audited financial statements. Fixed capital assets may also be easy to determine for informal sector enterprises.
Employment	Data are harder to obtain on seasonal and part-time employment than on regular full-time employment.
Enterprise management practices	The impact of better accounting on the profitability of informal sector enterprises may be limited. Business skills are hard to measure.
Financing	When enterprises obtain financing from multiple sources, not all of the income gains can be attributed to loans from a single program.
Sustainability of enterprises	Ex-post sustainability cannot be determined in the short run; resources are not usually available for long-term studies. Proxies are needed.

B. Household Level

Type of Impact	Issues/Problems Encountered
Gross income	With multiple income sources, earners, and income, it is difficult to know the total income of household accurately and this would require surveying all household members.
Net income	Data on net income are more difficult to obtain than gross income. Some respondents might not want their own household members to know their incomes.
Change in productive assets	Durable goods and equipment are relatively easy to monitor; but other forms of savings can be difficult to measure accurately.
Health (nutrition, water supply, sanitation)	Self-reporting is problematic on health, especially in group settings.
Educational progress	Percent of school-aged children in school is relatively easy to monitor; but the outcome (learning) is more difficult to measure.
Expenditures	It is difficult to get accurate information on household expenditures from surveys, even in the U.S.
Housing or other material goods consumed	Surveyors can observe many key material goods and housing types. Some consumption goods may be used for production (e.g., sewing machines and cars)
Empowerment	Qualitative data are difficult to summarize and donors want more quantitative indicators.

Table 12 (continued)

Table 12 (continued)

C. Community Level

Type of Impact	Issues/Problems Encountered
Environment or natural resource impact	Insufficient baseline data or understanding of causal relationships. Difficulties in placing economic values on physical, chemical, or biological effects.
Policy impact	These are best addressed in narrative rather than numerical indicators.
Community infrastructure or services	Community infrastructure or services might not have a direct link to microenterprise program interventions.

1. Loan Tracking Systems

In considering the value of these systems for impact assessment, it is necessary to examine two levels (or models) of data collection. The simplest collects data for loan portfolio management only; the second adds additional client, household and business level data to the loan application/renewal forms and/or gathers this data through additional interviewing by the field officers.

At the simplest level, the data available includes a client register, the number and value of loans received, amounts and dates of loan disbursements, scheduled and actual repayments, interest and fees paid, length of time past due, and any default.

Practitioners can use this data not only to manage their portfolios, but to provide indirect answers to some of the core questions listed above. Table 13 summarizes how this information can provide these clues.

While this is a substantial amount of information, it leaves many issues under the surface. Some borrowers may use loan funds intended for a particular enterprise for consumption purposes, or invest in other than the targeted enterprise. While this transfer of funds may increase the borrower's present welfare, it may jeopardize repayment of the loan or result in no measurable impact in the enterprise that was supposed to receive the loan.

Borrowers may be caught in cycles of increasing debt without increasing the enterprise's profitability or the well-being of households. Loans to women entrepreneurs could be diverted to men's productive activities or consumption.

The program cannot estimate magnitude of change in either enterprise or household income, nor can it assess to what extent increased enterprise revenue is reinvested in productive activities, or applied to increase household income.

Table 13 Using Portfolio Data to Provide Indications of Impact

Core Question Areas	Uses of Portfolio Data
1. Outreach and Scale	! client names provide gender breakdown. ! addresses (geographic location) can identify whether clients are located in target areas; areas of relative poverty ! loan size is considered proxy for poverty level: the assumption is that only the poor are interested in very small loans. ! accumulation of savings (forced or voluntary deposits) demonstrate increasing assets. ! number of clients signifies level of scale achieved
2. Enterprise Impact	! on-time payment suggests the enterprise activity is generating returns ! increases in loan size suggest growing businesses that can absorb more capital ! lengthening loan terms (if the program provides this option) may indicate a change of investment pattern --from working capital to productive assets ! information on business type can indicate that borrowers are increasing the complexity (and possibly risk) of their productive activities
3. Client Service	! on-time repayment and repeat loans are considered indicators that product meets client needs

To gain an understanding of these issues, and develop a more detailed portrait of the enterprises and households assisted, additional data collection through loan forms or simple surveys is required. Table 14 demonstrates the wide range of information that can be obtained from loan application forms. (This table only lists impact-related information and not information on loan fund performance.) Table 15 lists the minimum set of impact indicators that should be included in a loan tracking system for the most basic microenterprises (often operating at the survival-level) and some additional indicators for enterprises with better recordkeeping capabilities. Baseline data on each of these indicators can be collected in the loan application form or interviews with the owners just before the first loan disbursement is made. Subsequent data for impact assessment could be collected at least once a year while the loan is active (or once per loan cycle if that is more frequent). If data are only collected once a year, care should be taken in accounting for seasonal differences over the year. Ideally, impact data would continue to be collected for some period after repayment of the loan to allow for a time lag in generation of the impact.

Table 14 Impact Information That Can Be Obtained in Loan Application Forms

Characteristics of the Entrepreneurs

Number of owners
Name, gender, and location of owners
Education of the owners
Previous business experience
Other business currently operated by the owners
Salaried employment of the owners
Personal income of the owners
Household income of the owners
Household size of the owners
Bank balances and account numbers
Credit history and references
Collateral pledged

Characteristics of the Enterprise

Name and location of the business
Type of business and products
Age of the business
Degree of formality or informality
Production technologies used
Fixed capital assets
Inventories of products and raw materials
Accounts receivable
Cash and bank balances
Other assets
Short-term liabilities
Long-term liabilities
Monthly sales
Monthly expenditures by type
Monthly profits
Number and gender of full-time employees
Number and gender of part-time employees
Current and potential markets
Expected uses of the credit
Production capacity
Monthly capacity use rates for the past year

Table 15 Minimum Recommended Impact Indicators For a Loan Tracking System

A. The Most Basic Microenterprises:

Socioeconomic data
Number and gender of the entrepreneurs
Size of the entrepreneur's households
Poverty level of the entrepreneurs' households (proxy indicators such as amount of land owned [in rural areas], average monthly household expenditures on food [in urban areas], or cash savings)

Enterprise data
Number and gender of workers
Quantity of goods or services produced
Quantity of goods or services sold
Quantity of goods consumed by the entrepreneurs' households
Prices of the goods or services
Gross revenues of the enterprise
Fixed capital investment in the enterprise
Timeliness of loan repayments

Impact on households
Change in land ownership
Change in monthly expenditures
Change in cash savings

B. Additional Indicators for Microenterprises With Better Recordkeeping Capabilities:

Socioeconomic data
Total cash income of the entrepreneur
Other cash income of the entrepreneurs' households

Enterprise data
Production costs of the enterprise (excluding unpaid labor time)
Amount of unpaid labor time in the enterprise
Net cash income of the enterprise
Working capital investment in the enterprise

Impact on households
Change in household cash income

It should be noted that while this second level of data collection provides a more comprehensive portrait of clients, their enterprises and households, the quality and value of the information collected depends on consistency in collection and analysis.

It should also be noted that even with good execution, the challenges to obtaining accurate information on critical issues, such as income and poverty level, should not be underestimated.

Some of the largest problems occur in estimating total income and income gains. Entrepreneurs might not want to reveal their total incomes accurately or might not be able to if they have multiple enterprises. It may be particularly difficult to get an accurate estimate of total household income because the entrepreneur might not know how much money other household members are earning in their multitude of activities. Other possible complications include remittances from family members who are no longer living in the household and the variability of agricultural earnings. Loan applicants might overstate their initial income for strategic reasons if they think it will help them get the loan. Conversely, some might understate their income if they think they are at or beyond the upper limits of program eligibility. Or, after receiving a loan, borrowers who are not seeking repeat loans may underreport their enterprise income if they are in arrears on the loan repayments. The credibility of self-reported data in loan applications may vary with characteristics of the entrepreneur (such as education, gender, business experience and scale of operations, and local cultural factors).

With these factors in mind, there are three basic approaches that these simpler systems can take:

- Impact can either be estimated by subtracting the "before assistance" levels from the "after assistance" levels reported by the clients or **asking directly** about the changes. The advantages of asking about actual magnitudes before and after the assistance at the appropriate times are that the respondents do not have to recall data over long periods of time and do not have to do the subtraction themselves. The advantage of asking about the changes directly is that clients may be more willing to report changes in income and assets than the absolute magnitudes. However, clients may not know how much of the change was due to the microenterprise program versus other factors.

- Instead of or in addition to asking clients about their incomes or income changes directly, proxy measures can be used to estimate poverty levels. Clients can be asked about the number and types of key assets they own, such as land, livestock, houses, vehicles, savings accounts, or appliances. However, potential or current clients may be just as likely to underreport assets on loan application forms as income. If household surveys are done, the surveyor may be able to observe some of the key assets.

- Another proxy for income is monthly household expenditures, either the total or the amount for basic needs such as food and/or housing. Problems with this approach include seasonal variability and the possibility that the entrepreneur does not accurately know the total expenditures of all the household members. In some locations, the entrepreneur's education level may be a reasonable proxy for relative socioeconomic status.

It should finally be noted that there are categories of impact information that neither level of

loan tracking can assess. These include the impacts achieved by "drop outs," or participants who leave after one or two loans; net economic benefits to communities; and gender equity/empowerment issues at the household and community level.

2. Comprehensive Impact Assessment Systems

If business development services are provided in addition to loans, a program should keep records of the types, amount, and dates of these services provided to each enterprise. Comprehensive impact assessment systems can usually devote more resources to estimating net enterprise income, total household income, and household expenditures than can be done in a loan tracking system. Table 16 lists some of the additional questions comprehensive systems can address.

Table 16 Additional Questions That Can be Addressed in Comprehensive Impact Assessment Systems

- How does the type and quality of microenterprise services affect impact?
- How do the enterprise impacts vary with the sociodemographic characteristics of the entrepreneurs (gender, age, initial income, and education) and participation in other development assistance programs?
- How have clients fared relative to those without access to microenterprise services and those assisted by other programs?
- What are the adverse impacts of microenterprise services--on the environment, on gender, on children, on labor?
- How does length of participation in the program affect impact?
- What are the total monetary benefits to the economy, including effects on other enterprises not directly assisted?
- What are the social impacts on nutrition, health, education?
- How are economic and social impacts distributed by ethnic or religious group and by gender and age?
- What are the impacts on empowerment of women (in particular, decision-making and control of resources within the household)? What are the impacts on empowerment of disadvantaged groups within a society?
- What are the impacts on the allocation of work time and leisure within the household?
- What are the impacts on the environment and natural resource base?
- What are the impacts on institutional development and policies?

C. Data Collection Processes

1. Loan Tracking Systems

To be workable, loan tracking systems need to rely on relatively fast and easy methods of data collection. As noted earlier, loan application forms provide a low-cost opportunity for collecting baseline data collection on all borrowers and impact data on those that seek additional loans from the same program.

Loan application forms are most suitable for gathering information on the enterprise-level, but they can also collect some data on the households of the owners (at least from
the perspective of the entrepreneur). They do not usually provide much information on the impacts on workers and none at all on the backward and forward linkages of the enterprises receiving the loans on other enterprises.

An impact tracking system based on initial and repeat loan applications can be improved by incorporating additional client-level data and changing procedures to cover all borrowers including those who only took out a single loan. This information can be obtained through a survey of one-time borrowers or review of their enterprise records. The averages for income gains associated with the program would then reflect enterprises that graduated to other sources of credit, closed or moved on to other activities, or remained in business but failed to repay the initial loan. Supplementary surveys can also be used to gather more information on the effects on other members of the entrepreneur's household and the enterprise's workers.

Some loan tracking systems have experimented with group meetings for collection of impact data to reduce the costs of staff travel time. **Focus groups** usually involve 6-12 people and are centered on a limited number of issues discussed in a semi-structured format. Focus groups and larger meetings of participants can be very helpful in providing feedback on the design and implementation of programs, they are not well suited to gathering impact data on individual enterprises. Nevertheless, it may be possible to conduct individual surveys in privacy just before or after group meetings to save time and travel costs for reaching all of their field sites. The risk with this approach is sampling bias if the group meetings are only attended by those clients who are doing relatively well and not by those who have dropped out of the program or closed their enterprises.

As a routine part of its impact monitoring system, SME collected baseline data at the end of the first loan cycle. SME and FOMMI have supplemented loan tracking information with survey data. SME randomly surveyed clients only, but it allowed for high dropout rates and stratified by enterprise size and type in its initial calculation of sample size. SME tracked data longitudinally. Clients were interviewed at the end of each loan term for up to 3 years. One of the limitations of SME=s approach to impact monitoring is that clients who had not received a loan in more than 6 months were dropped from the sample.

2. Comprehensive Impact Assessment Systems

Key components of data collection processes for comprehensive impact information systems include:

- **!** Collection of baseline data
- **!** Proper sampling procedures, including stratification of the sample (where feasible)
- **!** Data collection at several points in time (longitudinal)
- **!** Careful designing and pretesting of survey instruments
- **!** Use of multiple techniques for collecting and verifying data

More rigorous evaluations could also include data collection from comparison groups, sufficiently large sample sizes for each stratum to ensure that statistically significant conclusions can be reached, the use of independent interviewers, and more detailed data collection instruments. Examples of the current or proposed practices of several organizations illustrate a number of these components.

Baseline Data

A lack of adequate baseline data on assisted enterprises and the people who benefit from them is still a problem in many comprehensive impact assessment systems, but more organizations are devoting some resources to baseline data collection. Baseline data allows before and after comparisons. These comparisons can be particularly useful in panel studies where a sample of respondents is tracked at multiple points over time.

ATI has collected baseline data in a variety of different ways, depending on the project -- subsector studies, feasibility studies, business plans, and special surveys conducted early in project implementation. Freedom from Hunger had several systems for monitoring impact, including routine financial and nonfinancial monitoring and special impact evaluation studies. It has done detailed baseline assessments and rigorous impact evaluation studies with its partners in several countries.

Sampling Procedures

Most NGO microenterprise programs can only afford to do relatively small sample surveys due to the cost and time involved in data collection and analysis. Sample sizes ranging between 25 and 100 are common. A few of the larger programs have conducted larger surveys, but this is not commonly done. Programs can keep stratified lists of participants for random sampling.

Inclusion of comparison groups of nonparticipants in surveys can rule out the possibility that nonparticipants and participants increased their incomes by roughly the same amount due to general economic growth, improvements in infrastructure, changes in government policies, or other factors exogenous to the project interventions.

If the comparison group approach is used, the sample size has to be large enough and random for statistically significant comparisons of the assisted group and the comparison group. Otherwise, differences between the two groups may only be due to random sampling error. In a quasi-experimental research design in which the assisted enterprises were self-selecting and a comparison group is chosen randomly, there can also be a problem of comparability with the comparison group. The entrepreneurs who took the initiative to obtain project assistance may have initially had some major characteristics different from those who did not show this initiative. In this case, it is possible but somewhat complicated to select a comparison group with characteristics that appear to match those of the assisted entrepreneurs.

It may be necessary to select a larger sample size for the nonparticipants than for the participants because the former may be less willing to provide their time in studies, especially for repeat visits in longitudinal studies. Members of comparison groups may be also harder to locate than program clients in the future.

If disaggregated information is desired for different groups of participants, the sample size for each group sampled affects the statistical significance. As the number of factors or states for each factor increase, the number of strata and hence the total sample size needed increase rapidly. The appropriate sample size depends on the variation in the key items of interest within each stratified population and the desired degree of confidence in the findings.

For example, when there are 4 different factors that may affect impact with two groups per factor (e.g. male/female clients, urban/rural location, single vs. multiple loans, and loans with or without technical assistance or training), sixteen different sample strata may be necessary for both the participants and the controls, for a total of thirty two strata. Few NGO programs have the resources to regularly survey a large enough sample size for rigorous use of the comparison group approach with much stratification of the client group, except in an occasional special study.

Relatively large sample sizes (200-400 or more) have been included in some surveys for Appropriate Technology International, Freedom from Hunger, and Save the Children. Few organizations regularly survey nonparticipants in program areas and even fewer survey nonparticipants in other locations. Those that included nonparticipants usually do so in special studies rather than routine monitoring. In some cases, ATI has stratified the sample and developed separate questionnaires for different categories of participants who have received varying types or amounts of assistance; for example, credit and marketing of alpaca fiber for local processing; technical assistance with credit and marketing; and marketing alone. ATI has also interviewed nonparticipants to learn about reasons for non-adoption of improved technologies or to estimate the savings from fuel-efficient household stoves. In special studies, Freedom from Hunger has collected data from comparison groups using sufficiently large sample sizes from each stratum to allow statistical tests to be conducted.

Longitudinal Data Collection

Data collection processes can either be designed to operate at fixed time intervals or on a rolling basis; for example, as project services such as technical assistance visits or loan follow-ups are provided. Routine monitoring done at intervals of less than one year can capture the seasonality of production cycles associated with certain types of enterprises. The frequency of data collection and the level of effort required each time may have implications for who can carry out the data collection (project staff versus consultants).

One-time impact studies done for midterm or final evaluations cannot show the dynamics of enterprise change in response to a series of project interventions over time. This problem can be solved by interviewing a sample of clients repeatedly over time and ideally following the phasing of various major inputs of project assistance. Organizations might also consider tracking

a statistically representative sample of borrowers, an approach that was successfully used with "sentinel populations" in the health programs.

In some projects, ATI has tracked a random sample of clients on an annual basis. It has found, for example, that market gardeners in Senegal have increased their cultivated area following the purchase of a treadle pump and that only part of the expansion occurs in the first year of pump ownership. FFH collected data at several points in time in its special studies.

Design and Pretesting of Survey Instruments

A carefully designed survey instrument with a logical order and clear definitions and instructions for the surveyors is very important. Some organizations provide basic categories to help survey respondents remember enterprise revenues and costs and household income. Those that are not doing so may find it more difficult to obtain accurate and reliable information.

Nevertheless, there are often serious methodological problems in impact studies due to biased sampling techniques, noncomparable comparison groups, recall problems, or strategic or instrumental bias. **Strategic bias** occurs when respondents have an incentive to give incorrect information because they think it may benefit them in some way. **Instrumental bias** occurs when research instruments contain leading questions or respondents provide the answers they think the people asking the questions want to hear. Nevertheless, NGO microenterprise impact monitoring is not meant to provide definitive social science research findings; it is meant to serve as a tool for program decision making.

Data collection problems can be reduced by pretesting instruments, providing more and better training for surveyors, and cross-checking reliability through the use of multiple methods and questions to get at the same type of information. Other AIMS studies discuss the conceptual and practical difficulties of collecting data on such items as household income, enterprise growth, and risk diversification.

ATI uses a standard set of indicators for impact monitoring, but relies on a variety of different questionnaires that are individually tailored to the subsector and specific interventions in the project. FFH=s survey instruments for special studies are also relatively detailed.

Multiple Data Collection Techniques

In comprehensive impact assessments, multiple approaches can be used to provide some cross-checks on data, particularly for income and wealth reporting. This approach, called **triangulation**, can be useful in confirming the validity and reliability of impact information although it would not normally be part of a simple loan tracking system.

Some projects that ATI and TechnoServe have established supporting medium-scale processing enterprises, serve as an example. The processing enterprises maintained business records and collected data on the raw material suppliers that was useful in monitoring. ATI then

included open-ended questions in surveys to gain information about perceptions, opportunities and constraints, and suggestions for improving project services. Freedom from Hunger=s data collection focuses on both questionnaires and anthropometric measures.

Other methodological issues require further research; for example:

- How have some of the organizations that compare impacts to comparison groups pair or match the samples?
- How are nonparticipants in nonprogram areas selected?
- With quasi-experimental designs for impact assessments conducted at one point in the year, how are samples of participants selected given that they may have been recruited at different times in the year?
- What time intervals should be chosen for longitudinal surveys? How can the impact of business development services be separately assessed from credit when programs provide both types of assistance?
- What more could be done at reasonable cost to assess socioeconomic impacts at the community level?
- Does the number and timing of loans provided to an enterprise affect impact compared to the size of the loans given and how can this be incorporated in the research design?

D. Data Analysis and Reporting

Tabulation and analysis of major surveys can often be a bottleneck, but have improved with the spread of personal computers and user-friendly software. Computerized data tabulation and analysis has many advantages, but requires skilled staff, operating hardware, and reliable electricity supplies. The analyst supervising tabulation and analysis should have a thorough understanding of the data collection instruments, the subsectors in which the enterprises operate, and, unless a separate translator is hired, the nuances of local languages. Care is needed in tabulation and analysis because misinterpretations of questions by surveyors and respondents are common.

With some software, information tabulated and analyzed on computers is easily exported to word processing files as tables, graphs, or text. Computerized reporting systems also facilitate rapid electronic communication between field and headquarter offices, but are still not in common use. Information that is compiled manually and kept on paper files is harder to retrieve and slower to transfer or compare. It can end up being underutilized.

Even when information is collected from a representative sample, few organizations are routinely employing even simple statistical tests in the analysis of the data. Multivariate statistical testing (for example to determine how enterprise growth depends on baseline household income) is only likely to be warranted for the larger special studies.

The temptation to attribute causality in statistical analysis of impacts needs to be avoided. Statistical techniques can only show correlation, not causality. Attributing impacts to particular interventions is particularly questionable when baseline data are unavailable and changes in comparison groups over the same time period are unknown.

The clients of microenterprise programs have rarely been involved in the analysis and interpretation of results, yet involving some clients at that stage could provide an additional check on the data quality and findings drawn from them. Some of the qualitative methods reviewed by Davies (1996) can be used for this purpose. At a minimum, organizations should discuss the findings in a group meeting with clients and readjust systems for data collection and analysis based on their feedback.

The usefulness of impact information to decision makers depends on the accessibility of the information and how it is presented. While it is not necessary to have a computerized database to have an effective impact assessment system, this can make the data more accessible and facilitate better presentation through graphs and tables.

The programs reviewed in this study provided little information about how they analyze data from their impact information systems. Consequently, it was not possible to draw from their experiences in making more specific recommendations about analysis and reporting of data. Several organizations did, however, provide information about how they share information once it is analyzed.

Freedom from Hunger=s approach to sharing reports helps ensure that all stakeholders participate in the information sharing process. Monitoring reports and impact studies are circulated within the headquarters office and to field offices and partner organizations. Impact information is provided to donors. Reports are widely circulated to FFH program managers and program directors who, in turn are encouraged to use this information to provide feedback to program coordinators and field agents. In its special impact studies, Save the Children hopes to take the process one step further by actively involving clients and community members in the discussion of results.

TechnoServe was an early leader among U.S. PVOs in electronic data exchange among field offices. Its MIS and project reports are available to managers on line and reports can be customized. Other NGOs and PVOs may wish to consider adopting a similar system for electronic data exchange.

E. Staffing and Training for System Implementation

Conducting surveys is an art as well as a science that requires skilled practitioners who can sense when respondents do not understand a question or are giving inconsistent information that needs to be probed further. NGOs can avoid many headaches in data tabulation and analysis by relying on experienced and capable surveyors who understand the subsectors. The skills of good field staff for project implementation are not necessarily the same as those of good impact assessors.

Furthermore, for greater objectivity, it is generally better to use outsiders who have been well trained on the program's characteristics than field staff. Field staff may have incentives to make their accomplishments look better or might even innocently prompt respondents to answer the way they think the respondents should answer based on program design rather than reality. Respondents may tend to do so because they want to obtain further services from the program. Conversely, some respondents may provide more truthful answers to someone they already know and trust.

While it may appear less costly to use program staff as surveyors instead of consultants, the opportunity cost in terms of potential impacts that could have been generated through their regular work may be high. On the other hand, the learning from impact assessment may be better institutionalized if carried out by project staff and they may be the only people available who understand the specific subsectors in which the project works (especially for nonfinancial service delivery). A good compromise may be to rely on program staff for routine monitoring and external support for evaluations or special studies that require client surveys or other extensive data collection efforts.

Staff involvement in the design and execution of impact information systems is critical to the success of impact measurement. In general, when staff are involved from the outset, they take greater ownership of the data collection, management and analysis process, more frequently feel responsible for data quality, and are more likely to use results of impact measurement to improve programming. Unfortunately, few organizations included in this review explicitly focused on institutional or organizational development for impact assessment. However, SME and Save the Children have placed a relatively high priority on strengthening staff capacity to monitor credit programs. ATI has also provided written guidelines and training for some field project staff on impact tracking.

SME's use of extension officers as data collection agents may jeopardize objectivity. However, the organization's institutional development strategy for monitoring programs was among the most clear and straightforward. Table 17 summarizes SME=s institutional development strategy for impact assessment.

While considerably less explicit than SME=s approach to organizational development for impact assessment, Save the Children=s approach represents a viable alternative for organizations interested in higher-end evaluations and impact studies. Elements of Save the Children=s approach to institutional development include

- Training in focus group discussion methods
- Staff involvement in decision making about the amount of information that will be collected
- Staff involvement in the modification of questionnaires to fit the local context training in surveying and tallying
- Staff participation in sample size selection
- Staff involvement in program modification, based on results from impact assessment.

Table 17 SME's Approach to Institutional Development for Impact Assessment

Element	Strength
Extension officers collect data.	Officers= capacity to think critically about programming improves as they receive regular feedback from clients about programs.

Most stakeholders (donors, project staff, technical assistance team) are included in decision making about indicators.	Greater input from multiple stakeholders helps ensure that the relevant questions are asked and that all groups feel ownership of impact assessment.
Extension officers, branch managers and liaison staff receive classroom and field-based training in data collection (including assessment of data quality), management and analysis.	Personnel at a variety of levels become familiar with the importance of impact assessment.
Training is accompanied by a short, easy-to-use manual, complete with modules, handouts, and descriptions of roles and responsibilities of those involved in impact assessment.	Staff have materials they can refer to frequently.

F. Balancing Costs and Requirements

Impact information systems can be categorized along a continuum of cost and sophistication. In general, those that are more sophisticated are also more costly. The cost of an impact information system depends on the number and types of indicators, the methods used to gather and analyze the data, the frequency of data collection, the scale of the effort (e.g., sample size and geographic boundary), who is doing the work, prevailing costs in the areas where the data are collected and analyzed, and how the information is stored and reported. There are also costs associated with not conducting impact assessments, including the continued use of approaches that are not cost effective or that are not reaching the intended beneficiaries.

Organizations committed to tracking their overall impact achievements, especially those that have established performance targets, may want to devote greater efforts to assessing the impacts of the larger, more established programs that generate the most impacts. Some organizations may also wish to allocate more resources to assessing the impacts of experimental or pilot programs to determine whether they should be expanded or replicated.

1. Loan Tracking Systems

Loan tracking systems can often be implemented at a relatively low cost and even simple systems can generate useful information for guiding programs. The costs of loan tracking systems vary with the number of borrowers tracked, the extent and frequency of data collection, and who gathers the information. The costs will be lower if information is collected on a sample of the borrowers rather than the whole population.

The cheapest way to implement a loan tracking system may be to limit the focus to borrowers who apply for repeat loans because information can then be collected with no incremental costs for field travel. The initial loan applications can serve as an inexpensive source of baseline data and impacts can be calculated by comparing the baseline to the same types of information in the repeat loan applications. The information can either be gathered through self reporting by applicants on forms or in interviews with project staff. This approach is only possible in programs where clients can take out multiple loans over time.

Even microenterprise credit programs that operate like banks typically collect some information in loan applications although some might not currently devote much effort to analyzing what they are already collecting. It would not be difficult to add a few more items to the information already being collected or to analyze it to gain a better understanding of impact. However, loan application forms are not used in village banking programs (Nelson et al. 1996) and they are not appropriate where clients have low rates of literacy or numeracy.

The second least costly way may be to rely on program staff to gather additional information

during their routine transactions with borrowers at their enterprise premises or program offices. Field staff might already meet with borrowers regularly for release of disbursements, collection repayments, or provision of business development services. The incremental cash costs of collecting the information may be low if program staff do not have to make any extra trips to meet with the individuals best able to answer their questions.

2. Comprehensive Impact Assessment Systems

Comprehensive impact information systems are more costly and can be more rigorous than loan tracking systems. Many organizations rely on hybrid systems that track some of the more easily measured impacts in monitoring and reserve more extensive impact assessment for less frequent evaluations. Indicators for routine monitoring have to be simpler and less costly than those that can be addressed in less frequent evaluations or special studies.

With limited budgets for impact assessment, the collection of information at additional levels of impact may require reducing the number of indicators or amount of detail currently collected. Research-oriented headquarters staff sometimes have a tendency to establish excessive data collection requirements that are burdensome for field staff. It is important to decide what information is really necessary and will be used. This issue has not been dealt with directly in any of the documentation on impact indicators reviewed, but is implicit in judgments made by the organizations on which indicators to include in their systems. More work is needed to gain a better understanding of what data can be collected from clients at a reasonable cost with sufficient validity and reliability.

ANNEX A. SEEP NETWORK/AIMS PROJECT QUESTIONNAIRE ON IMPACT INFORMATION SYSTEMS FOR PVO/NGO MICROENTERPRISE PROGRAMS

Name of organization _____
Name of respondent _____
Date _____

[* = Circle all items that apply.
____ = Use a separate page if needed.]

*1. Does your organization currently assess the economic, social, or environmental impacts of its microenterprise programs?

A. Yes, in midterm and final evaluations of programs
B. Yes, at least once a year following a standard format or specified list of impact indicators
C. Yes, at least once a year, but there is no standard format or specified list of impact indicators
D. No **[Explain why, then go to question 14]**_____

2. How does your organization currently process the impact information collected on its microenterprise programs?

A. The information is compiled in a computerized database or Impact Information System (IIS) concerned solely with impact
B. The information is compiled in a computerized database or Management Information System (MIS) that combines information on impacts with other information such as program activities, funding, expenditures, loan portfolio performance etc.
C. The information is compiled manually into an impact assessment report
D. The impact information is kept on paper in files at the headquarters office, but not compiled **[go to question 5]**
E. The impact information is kept on paper in files at the program field offices, but not compiled **[go to question 5]**
F. A new Impact Information System or Management Information System is still in the process of being developed or tested

*3. Who receives the report on the impacts of your organization's microenterprise program impacts?

A. Yes, it is circulated within the headquarters office
B. Yes, it is shared with field offices/partners
C. Yes, it is provided to donors
D. Yes, it is available for external distribution
E. No impact report is produced, but some impact information is included in the organization's promotional materials
F. No impact report is produced and impact information is <u>not</u> included in the organization's promotional materials

G. Other **[specify]** _____

4. How long has your organization been using this impact assessment system? _____

*5. Which of the following levels of impact are addressed in your impact assessment efforts?

A. Impacts on the business of microenterprises directly assisted
B. Indirect impacts on the business of other microenterprises
C. Impacts on individuals who are owners and workers in assisted microenterprises
D. Impacts on households of assisted microenterprise owners and workers
E. Impacts on villages and communities
F. Other **[specify]** _____

*6. What types of impacts are included in your impact assessment efforts?

A. Outreach (number of participating enterprises or producers)
B. Economic impacts
    1. Gross income or production
    2. Net income (profits)
    3. Value added
    4. Changes in assets
    5. Employment
C. Social impacts
    1. Nutrition
    2. Water supply and sanitation
    3. Health status
    4. Education
    5. Housing and material goods
    6. Empowerment
D. Environment/natural resource impacts
E. Other **[specify]** _____

*7. Which of the following does your impact assessment efforts include?
A. Quantitative indicators
B. Qualitative impact indicators
C. Targets as well as achievements
D. Gender-disaggregated data

*8. Where does the information come from for your assessment of microenterprise program impacts?
A. Baseline studies conducted before or early in projects
B. Initial applications for loans, loan guarantees, or equity investments
C. Applications for renewal or repeat loans, loan guarantees, or equity investments
D. Business plans and other nonfinancial services provided to microenterprises

E. Field officer site visits to monitor loans, loan guarantees, or equity investments
F. Midterm evaluations
G. Final evaluations
H. Sample surveys or rapid appraisals
I. Program records of activities and outputs
J. Program staff estimates of impacts
K. Other **[specify]** _____

9. How often does your organization generate reports on its microenterprise program impacts?
   A. Monthly or more often
   B. Quarterly
   C. Twice a year
   D. Annually
   E. Less frequently than annually
   F. Other **[specify]** _____
   G. Does not generate impact reports on the overall microenterprise program

10. What are the strengths of your current impact assessment system? _____

11. What are the weaknesses of your current impact assessment system? _____

*12. How has your impact assessment system been used in decision making within your organization?
   A. Identifying the need for changes in design or implementation of existing projects
   B. Allocating resources to new and existing projects
   C. Strategic planning for the organization
      1. Size or location of microenterprise programs
      2. Choice of approaches for microenterprise programs
   D. Designing new projects and programs
   E. Deciding on compensation or retention or promotion of personnel
   F. Selecting or changing project partner organizations
   G. Other **[specify]** _____

13. Has your organization previously used a different system for tracking impact information? **[If so, how did it differ from your current system and what was the experience with it**?] ___

14. Are you aware of any other U.S. PVOs or developing country NGOs that are using a good IIS or MIS that includes impact indicators?
   A. No
   B. Yes **[specify]** _____

If your organization is using an IIS or MIS that includes impact indicators, please provide SEEP with

1. Materials describing the system
2. A sample of the results of the IIS or MIS
3. An example of a report on the impacts of the organization's microenterprise programs

ANNEX B. DETAILED DESCRIPTIONS OF SELECTED SYSTEMS

ACCION

ACCION-International previously assessed the economic and social impacts of its international program, but no longer does so because the experience was variable in different countries of Latin America**.** Its U.S. program continues to assess the impacts of its microenterprise programs.

ACCION-US assesses impacts once a year using a standard format or list of indicators. The information is compiled in a computerized Management Information System that combines information on impacts with other information on program activities. Impact tables and graphs are circulated within the head office and field offices/partners, and are available to the public on request**.** The system was adopted in 1995, but historical data back to 1991 have been entered.

The system includes information about impacts on the businesses assisted and the households of the owners and workers of the businesses. The types of impacts included are outreach, economic impacts (gross and net income, changes in assets, employment, and percent of household income from the enterprise), social impacts (degree of reliance on public assistance), and business characteristics (formality, location, sophistication of recordkeeping, and access to other sources of credit).

The data come from applications for initial and repeat loans, field officer visits, and program records. Reports are generated monthly on outreach (including women borrowers) and annually on other program impacts. The system uses quantitative indicators, which are gender disaggregated.

Monitoring information on the number of loans and loan quality of each credit officer, but not the impacts on the businesses, is used for personnel decisions**.** Impact information is used to identify the need for changes in project implementation, strategic planning for the organization, and the choice of approaches for microenterprise programs.

ACCION-US has a menu-driven computerized database containing the following information:

Client files: Name, location, ethnic group, country of origin, age, gender, number of dependents, educational level, total and per capita household income, percent of owner's household income from the business, years of residence in the state or province, years of business experience

Loan information: (loan parameters, disbursements and repayments, percentages for fixed and working capital, and impacts on the businesses and clients after each new loan)

Business information: (sector and specific type of business, years in operation, location,

licensing, sophistication of recordkeeping, type of ownership, owner equity share, business hours and work hours, assets and liabilities, monthly revenue, monthly profits, monthly take home income, monthly expenses, part-time and full-time employment, and access to other sources of credit)

Program data: (median total and per capita income of client households compared to the U.S. average, number and share of clients below the poverty line and those in near poverty [125% of the poverty line], and percent of clients on public assistance)

Information entered into the database can be downloaded into an ASCII file that can then be analyzed in a spreadsheet (Lotus 123) or statistical program**.** The database can also print or display any combination of information about the clients or loans and reports can be generated by funding source, loan officer, type of loan (group, group guarantee, small individual, large individual). It can combine data from all programs or report on them separately. Data can also be merged into a WordPerfect document containing forms for promissory notes, security agreements, or letters.

ACCION-US has produced a client profile report covering July 1991 to June 1995 with self-reported data covering all 646 entrepreneurs who had received a loan from its programs. For internal purposes, it has also prepared a preliminary analysis of the average impacts of its longest-standing program (New York), showing the progression with each successive loan. From this information and assumptions of the duration of the loans and future lending activity, it has projected impacts for the New York program from 1996-2000 on full- and part-time employment, business assets, monthly business profits, and monthly take-home income.

ADEMI

Lewin (1991) discussed ADEMI's system for monitoring of borrowers. However, since the team has not yet received a survey form from the Dominican Republic, we do not know whether the system is still current as described in this GEMINI report. As previously described, ADEMI places a high priority on monitoring of borrowers. An adviser visits the borrower within three days of a loan disbursement and makes further follow-up visits an average of 2-3 times a month, each visit lasting from 5 minutes to 2 hours. The purposes of the visits include verification of loan uses, repayment reminders, and provision of business assistance.

ADEMI collects financial information on the entrepreneur and the business in the loan applications. The information on the socioeconomic characteristics of the entrepreneur includes education, age, number of dependents, profession, experience, household income, and banking and credit references. The information on the characteristics of the enterprise includes legal status, ownership, number of employees and wages, key clients and potential clients, an inventory of business machinery and equipment; a balance sheet with assets, liabilities, and capital; an income and expenditures statement; plans for use of the loan; and anticipated results**.** For repeat loans, the current situation of the business and operating results are updated. For clients with repeat loans, impacts on the business between the time of the initial loan application and the

repeat loan application can be calculated.

Appropriate Technology International (ATI)

ATI first instituted an annual impact tracking system (ITS) in calendar year 1993 to supplement its process of conducting midterm and final evaluations of all major projects with more timely information for decision making. The ITS allows comparison and aggregation of indicators across projects. It has evolved in use to focus on the most critical information needed, eliminate items that are difficult to monitor annually, clarify definitions, and make the format more user friendly. ATI has prepared guidelines to help field staff complete the impact tracking form (Stosch and Hyman 1996). The information is compiled in a computerized database (FileMaker Pro) for easy retrieval and analysis.

An annual report is prepared analyzing the information by project, geographic region, and substantive program area. and the organizational portfolio. It also contains project descriptions and a narrative on the principal lessons learned. The report is circulated with the headquarters and field offices and shared with project partners, donors, and development professionals.

Impact information is used in identifying the need for changes in existing projects, allocating resources to projects, strategic planning for the organization, designing new projects, personnel decisions, and the selection of project partners. ATI has found impact information particularly useful in preparing funding proposals and focusing on programs with the greatest potential for impact.

Data for ATI's impact tracking system are collected annually. Diverse methods are used in data collection and are discussed by project and headquarters staff. The data sources include baseline studies, business plans, midterm and final evaluations, field officer visits, sample surveys or rapid appraisals, project or enterprise records, staff estimates, applications for initial and repeat financing, and quarterly project financial and progress reports.

Some projects have a budget that allows annual impact surveys. However, due to resource limitations, the annual reporting often relies on a combination of primary data for the year and estimates based on data from prior years. In some cases, ATI is continuing to track impacts after a project has ended. Data may be gathered by a local consultant, ATI partners, or ATI headquarters or field staff**.** ATI emphasizes quantitative indicators although some qualitative information is collected.

In most cases, project partners or field offices submit the compiled information on the database forms to the headquarters office, where they are reviewed by the relevant project officer and ATI evaluation staff. The headquarters office often has to request clarifications or corrections from the field before the data can be accepted. In some cases, particularly if the data are largely derived from a recent evaluation conducted by headquarters staff or a survey analyzed at headquarters, the project officer or evaluation staff completes the form. Increasingly, it is expected these tasks will be done in the field.

The ITS tracks program inputs and activities as well as impact: project budgets and expenditures, donor and project partner involvement, expected dates and completion dates for baseline data studies and evaluations, and known replications elsewhere. The database records the main technology interventions, number of enterprises producing and using the technology, cumulative number in use, number of new units in use, number of units that went out of use this year, and the cost per unit.

Enterprise financing from project and nonproject sources are monitored, including the annual and cumulative number and value of project loans, loan repayments due and repayments received, and cash available for further lending at the end of the year. All monetary figures are converted to U.S. dollars at the end-of-year exchange rate. Where projects provide enterprises with equity investments, the number and value of investments made and returns received by the project from dividends and shares sold are tracked.

ATI's program indicators have been grouped under four objectives: 1) **impact**, 2) **sustainability of impact**, 3) **funding diversification**; and 4) **cost effectiveness**. For some of the indicators, targets have been set for the organization as a whole. Project impacts are compared to targets and the data are gender disaggregated. For the program indicators, ATI monitors project **outreach** (number of enterprises, producer participants, and consumers benefiting) and total monetary benefits (TMB).

ATI primarily addresses impacts on the businesses of enterprises directly assisted by the project as well as indirect impacts on other enterprises within the subsector that are supplying technologies raw materials to directly assisted enterprises or buying intermediate goods from them. Consumer impacts are counted when savings can be clearly documented from price reductions or greater efficiency of product use.

The assisted enterprises are subdivided into those 1) newly assisted this year, 2) that stopped operating this year; 3) owned by individuals/partnerships versus groups; 4) with ten or fewer workers versus eleven or more; and 5) in the informal sector, formal sector, or agricultural production. Producer participants are the individuals who at benefit from enterprise activities directly or indirectly. The number of producer participants is disaggregated by gender and also categorized into owners of individual enterprises/partnerships, owners of group enterprises, workers, raw material suppliers, and in a few cases, other beneficiaries. For existing enterprises producing a variety of products, only the employees involved in the project-related activities are included. ATI also monitors labor displacement or other negative effects. The total number of economic participants is computed by adding producer participants to consumers, counting one person per household as a consumer beneficiary -- the principal person paying the bills for the household.

ATI counts beneficiaries conservatively by only including producer participants who receive at least $20 per year in incremental gross income gains as a result of the project. Consequently, people who receive training or credit are only counted as producer participants if

they have earned that much additional income as a result of the assistance. In addition, ATI only counts these producers themselves and not all of the members of their families (who are included as beneficiaries by many other organizations, usually by multiplying the number of individuals benefiting by the average household size). The $20/year rule does not apply to consumers because their savings is often smaller, but consumers are listed separately from producer participants.

While the number of beneficiaries is tracked more broadly than the enterprises, the total economic impact is assessed rather the income gains accruing to each class of beneficiaries.
ATI includes in **total monetary benefits** the producer cost savings, incremental gross value of final goods and services sold, value of final goods consumed by the producers' own households, and value of consumer savings resulting from the project.

By focusing on the gross value of final products, annual data collection costs are reduced and income that goes to the entrepreneurs, workers, and raw material suppliers gets counted (to the extent that no inputs are imported, this is the value added to the domestic economy). However, midterm and final evaluations generally estimate net income gains for the enterprises and may also address social impacts that are too costly to monitor every year (for example, impacts on nutrition and health, and housing). The ITS does track environment/natural resource impacts in projects where they are significant.

Sustainability of impact is measured through proxy indicators that do not require waiting until after a project is over. ATI defines a **sustainable enterprise** as one that recovers the full direct costs of production and distribution and generates producer income gains, either without any continued donor support from ATI or its project partners in the current year or with full recovery of the operating costs of project services. Sustainable enterprises activities generate revenues that exceed operating costs, but do not necessarily recover fixed and/or sunk development costs**.**

ATI estimates the number of producer participants and amount of total monetary benefits associated with sustainable enterprises**.** Two other indicators of impact sustainability are used: 1) the amount of the assisted enterprises own equity investments associated with the project activities and 2) participant payments for services from ATI-related activities (cost recovery from fees, royalties, or purchases of inputs).

On the organizational portfolio level, ATI monitors funding diversification annually through four indicators:

1. Cumulative noncore donor commitments/cumulative USAID/W/Global Bureau core commitments over the life of the current agreement
2. Noncore commitments from USAID
3. Overhead cost recovery rate from all funding sources/approved ATI NICRA rate
4. Total unrestricted income

Starting in 1995, ATI began calculating two cost-effectiveness ratios for the overall portfolio: 1) cumulative TMB/cumulative core funds received , 2) cumulative TMB/cumulative total donor funds spent. Several other cost-effectiveness ratios are calculated for each project and program area: 1) Cumulative net project cost/Enterprises assisted, 2) Cumulative net project cost/Producer participants, 3) Cumulative TMB/Cumulative net project cost, 4) Net annual project cost/New enterprises assisted during the year, 5) Net annual project cost/Change in producer participants during the year, and 6) Net annual project cost/Change in TMB during the year.

ATI defines **project cost** as total expenditures from all funding sources (all donor support, the ATI's own contributions to the project budget, and partner counterpart support). **Net cost** is the total cost less project cost recovery from client enterprises (whether the recovered costs are returned to ATI, the project partner, or service enterprises created by the project).

Because ATI's activities to assist private sector enterprises in one year may continue to generate benefits for many years, a cost-benefit analysis is conducted that includes projections of future impacts. The basic indicator for the cost-benefit analysis is the net present value (NPV). Where the internal rate of return (IRR) can be calculated, it is included as well, but it provides equivalent information as the NPV. The cost-benefit calculation projects total monetary benefits forward over a ten-year period under the assumption that no further project expenditures take place and no additional enterprises will be assisted. It also incorporates a rate of enterprise closure.

FINCA-US

FINCA-US collects baseline data on microenterprises in the registration form for Self-Employment Association members**.** The same form is completed at the formation stage and for each loan cycle (up to five). The registration form is used to gather socioeconomic information on the credit applicant and business information on the enterprise. The socioeconomic information requested is gender, ethnicity, country of origin, wage employment, household size and number of dependents, education, sources and amounts of household income, reliance on public assistance, and personal banking references.

The form asks about the following items for existing or proposed enterprises: the type of business, whether this is the applicant's first business, how long the business has been operating, and whether the applicant has received business training or counseling. For operating enterprises, the applicant is also asked about the type of business location, hours worked per week, paid part-time and full-time employment, unpaid workers, average monthly gross sales and profits, business assets, experience with bank loans and other sources of financing.

By comparing information submitted in the initial registration form with that from subsequent forms, impacts from one loan cycle to the next and from the first application to the latest loan cycle can be estimated. FINCA-US prepares a Program Impact Report that shows changes in the association membership; the number of members who have ended or reduced their

dependence on public assistance; the number who have received business training from non-FINCA sources; impacts on business employment, location, financing sources, sales, profits, and assets; and household income**.** The Program Impact Report shows both absolute and percentage changes.

FINCA-International does not currently have an impact monitoring system for its projects, but it is gathering information about impact information systems and survey questionnaires used by other organizations. Depending on the outcome of this process, it may offer these materials as a resource book for projects or consider developing its own system.

Programa de Fomento de la Microempresa en las Zonas Marginales (FOMMI)

FOMMI, a microenterprise credit program in El Salvador, implemented a system to gather a variety of information on the microenterprise and the household, mostly through self reporting. At the enterprise level, information is collected on monthly revenues, profits, number of employees, purchases of durable goods and equipment, and expansion. At the household level, information is collected on savings, diet, morbidity, children's attendance at school, housing improvements, and quality of life. This system contains both quantitative and qualitative data and an array of institutional development indicators for FOMMI's intermediary organizations.

Data have been collected for a random sample of 15% of FOMMI's roughly 3,500 existing clients. The sample is well distributed across sectors (manufacturing, services, commerce, and fishing/agriculture), but enterprises receiving relatively small amounts of credit were not included in the sampling frame. The originally targeted sample was 514 enterprises, but 30% of them refused to provide the requested information, had relocated or no longer existed, or the client was now in the United States.

The high rate of nonparticipation in the survey and the exclusion of enterprises with small amounts of credit call into question the representativeness of the types of individuals in the study. The FOMMI system does not include information from a comparison group, making it difficult to draw conclusions about the impact of the program.

The emphasis on self reporting also presents a problem. For example, individuals were asked whether their household had experienced any changes in the various conditions after receiving credit. The limitations to this type of data collection include instrumental bias from the fact that the question pegs changes in status to the receipt of program credit, the failure to distinguish age and gender of family members (for example, boys may be more likely to attend school as a result of the credit), and the failure to cross check data with more detailed questions or other types of questions.

FOMMI generated an impact report for itself and partner staff in a format that is easy to understand and includes tables and graphs. However, the report did not include statistics and the usefulness of the data may be questionable given the unusually high refusal rate and the use of leading questions.

Food for the Hungry International (FHI)-Faulu Loan Program (Kenya)

The Faulu Africa loan program in Kenya is the largest microenterprise program of Food for the Hungry International. FHI conducts midterm and final evaluations of its microenterprise programs and the Kenya program tracks impacts annually following a standard format or list of indicators. The information is compiled in a computerized database that is part of a broader management information system. Reports on impact are circulated within the headquarters office and field offices, and provided to donors and other external audiences. Its current system has been in use for 3 years. The previous system had problems with insufficient and inconsistent quality data.

FHI-Kenya's impact assessment system examines outreach and economic impacts on the business of microenterprises directly assisted and individual who are owners and workers in these enterprises. It includes quantitative and qualitative indicators, gender-disaggregated data, and targets as well as achievements. The information from initial and repeat applications for loans, midterm evaluations, program records, and staff estimates. Reports are generated once a month. The IIS is used in decision making to identify the need for changes in design or implementation of projects, strategic planing for the organization, and designing new projects.

The Monthly Monitoring Report contains quantitative data collected by credit officers, which are then tabulated in a computerized spreadsheet. This information includes membership growth, group formation, loan portfolio status, loan payment activity, arrearage, female participation, and loan security fund activity.

The loan application form gathers baseline data on the enterprise's cash holdings, inventories, accounts receivable, fixed assets, debt, net worth, average monthly sales and expenses, and employment as well as the entrepreneur's household income, property, and bank balances.

Before receiving a loan, each client also fills out a pictorial Dream Chart on their dreams for their businesses and families. This chart is used in monitoring the economic and social impacts of the loans. For each item on the dream chart, the client lists the current status, aspirations for the first and second loans, and future status (up to 7 years). This is done for the business (location, equipment and furniture, inventories, employees, and expansion of production), each family member, and assets (farmland, housing, household assets, animals), and health services.

In a group meeting, the group is asked to draw a picture of how they see themselves; identify problems, successes, and critical incidents; and participate in focus group discussions and role playing. At client meetings, the loan officers ask borrowers the number of loans they have received; the enterprises they are operating with the loans (separately identifying those that had stopped operating); whether they had these enterprises before the loans, and whether the loans have changed the number of people working for them, value of their working capital, fixed assets,

cash on hand, and receivables. The clients are asked to state whether their business income has gone up, stayed the same, or gone down, but do not have the quantify the amounts.

Freedom from Hunger (FFH)

Freedom from Hunger has done limited impact monitoring of all programs on a quarterly basis over the past two years. For four years, it has assessed the impacts of selected programs through special studies. The special studies typically include small surveys of participants and nonparticipants, but more in-depth surveys, qualitative investigations, and mini-studies on specific programmatic issues have also been done.

All of FFH Credit With Education program partners do a credit assessment that collects baseline information on women's economic activities and experience with credit. They also conduct baseline surveys of women's health and nutritional knowledge and practices. While this information is mainly used to refine the credit and education components to meet local conditions, it can also be used to set impact goals and serve as a benchmark for measuring impacts.

FFH's partner organizations do financial monitoring of credit funds and program expenses and revenues and nonfinancial monitoring on a quarterly basis. The nonfinancial monitoring reports on the performance of each credit association over a loan cycle**.** Some information is collected on each credit association at the first meeting of each loan cycle (member characteristics, association finances, borrower loan activities, members' goals, and the planned topic for the educational component for the loan cycle).

A weekly report is prepared on each credit association for the whole loan cycle. It contains performance indicators for credit and educational activities that are set by field agents and their supervisor or program coordinator. The field agent completes another form at the last meeting of each loan cycle. The supervisor or program coordinator uses the information from the end of cycle form to rate the performance of each credit association and assign a financial risk rating that determines the amount of cash the association is required to hold.

The beginning of cycle, weekly, and end of cycle forms collected the following information on outreach and impact (in addition to information on program inputs and outputs and financial monitoring indicators, which are not listed below):

- **Program Participants**
  - Number of members and borrowers
  - Number of new members
  - Member dropout rate
  - Number of members who are pregnant or lactating
  - Number of members with children < 5 years of age
  - Uses of the loan

- **Association Organizational Capacity**

- Self management (field agent assessment of attendance, repayment application of rules, bookkeeping)
- Solidarity/ownership (problems, emergency assistance, loan feasibility assessment, encouragement of new members)

- **Participant self-evaluation**
- Program performance
- Learning

- **Impact**
- Association growth
- Self-reported learning and adoption and promotion of improved health/nutrition behaviors
- Self-reported loan profitability and learning about ways to make more profit
- Participant's assessment of goal achievement (better diets, improved health)
- Loan uses
- Members' savings
- Number of borrowers who took on further debt to pay program loan

Only a small portion of the monitoring system was concerned with impact tracking and this information was obtained in group meetings at the end of a loan cycle. In these meetings, participants reported their perceptions of the profitability of the loans and discussed the comparative profitability of different enterprise activities and their compatibility with child care. Participants in the group discussions were also asked whether 1) they had learned anything useful about health and nutrition through the program, 2) they had applied what they had learned or told others about it, and 3) their families have eaten better as a result of the loans or education. At the beginning of the next loan cycle, client groups set goals and discuss the extent to which goals set for previous loan cycles have been achieved.

The impact monitoring system's questions on achievement of goals were mainly intended to flag possible problems and remind clients and field staff of the goals, rather than to assess impact. For example, FFH has learned about reasons for membership turnover in the credit associations, changes in program repayment and savings rates, loans taken from other sources to repay program loans, and borrower plans to take another program loan in the next cycle**.** However, much of this information was descriptive or related to the educational services rather than microenterprise credit.

Program coordinators tally the forms from the Quarterly Credit Association Monitoring System manually or in a computerized database. FFH's International Center enters information from the various programs into an ACCESS database and generates a combined report with graphs, tables, and a narrative on issues for the overall program and individual projects**.**

In addition, a more elaborate impact monitoring instrument was developed for one of FFH's partners to gather longitudinal information on a sample of participants tracked over time. It had asked about changes in enterprise activities, women's work, health and nutritional practices,

and household expenditures and diet. There were some problems in the application of this monitoring instrument and the largely qualitative data were rich, but difficult to summarize systematically. While this instrument helped field agents understand the experience of the interviewed clients, donors wanted quantitative information on a small number of key impact indicators.

Small surveys have been done to get preliminary information on impacts and provide information useful to a specific program. Larger special studies are only done for a few program sites to concentrate resources, allowing for use of more rigorous methods. The larger studies are intended to provide generalizable findings for all Credit With Education programs. They are either conducted by FFH staff or consultants, often with assistance from research institutions, and may have outside funding. The surveys have examined economic impacts (gross and net income, changes in assets, household expenditures on food and schooling), social impacts (nutritional status, education, housing, empowerment, and community relations). All of the clients of FFH Credit With Education Programs are women. Quantitative data from surveys are analyzed with a statistical software package, but the qualitative data from open-ended questions is not computerized.

Virtually all of FFH's program partners face a demand for impact information specific to their own programs. FFH reported that the impact portion of the regular monitoring system has not worked well. As a result, it made major changes in the nonfinancial monitoring system in June of 1996. The changes reduce and simplify data requirements for monitoring and facilitate computerization. Many of the impact indicators from the previous system have been dropped either because the indicators have not been very useful or the method for gathering the information did not work well. For example, collecting information about individual households (such as whether the family is eating better or has learned new health and nutrition practices) in a group setting has not been very reliable.

Instead of including impact indicators in its regular monitoring system, FFH is now providing partners with examples of surveys and research protocols that have been useful in comparing a sample of participants and nonparticipants after two years of program implementation. It is now developing a new standard client survey for partners interested in assessing key impacts.

Monitoring reports and impact studies are circulated within the headquarters office and the field offices/partners. They are widely distributed to FFH program managers and program directors working with various partners, who in turn are encouraged to use them to provide feedback to program coordinators and field agents. Impact information is also provided to donors.

Program managers use monitoring information to decide how much field agent time each credit association needs for technical assistance in the next loan cycle. The associations' financial risk ratings determine the maximum loan size for borrowers in the association and whether repayments can be made in monthly installments rather than weekly installments. Monitoring

information on participant dropout rates and reasons why clients did not take larger repeat loans led directly to a decision to increase the flexibility of the program's loan terms. Impact information from special participant-level studies has been particularly useful in designing education activities.

Kenya Rural Enterprise Program (K-REP)

The Kenya Rural Enterprise Program uses a quasi-experimental design for a sample of its clients to track the following enterprise impacts: number of jobs created, level of business and household income, size or value of business and household assets, enterprise survival and gross margins, marketing, pricing, and technological innovations, incidence of product and process innovations, and changes in business management practices. On the household level, it assesses changes in income and sources of income, wealth, shelter quality, and access to health facilities.

Panel data are supplemented with focused case studies and three time-specific Area Business Conditions and Performance Surveys. Data are collected at baseline and periodically thereafter (usually every six months, for four years). For a random sample of individuals, a more detailed baseline is used. The purpose of this baseline is to assess changes among clients over short and long periods of time. After four years, clients are asked to complete the same survey again.

K-REP=s Impact Information System has several limitations: the failure to collect information from nonclients, the assumption that credit is the only source of change in people=s lives, relatively small sample sizes, and high attrition rates from the studies. K-REP tries to conduct cluster sampling based upon number of workers in the enterprise, size of the enterprise, and type of business activity. However, since only 252 individuals from all strata have responded to 2 interviews, reaching statistically significant conclusions about impact may be difficult**.** K-REP generates data showing the impact of services on beneficiaries. Specific objectives include the provision of information for 1) regular program reviews, 2) changes in target groups' conditions, and 3) assessment of the advantages and disadvantages of a particular strategy.

Mennonite Economic Development Associates (MEDA)-PRISMA Project (Bolivia)

The Mennonite Economic Development Associates assess impacts of projects in annual evaluations conducted in mid-summer of each year. The evaluations are expected to follow general guidelines contained in a handbook for program management, but each project may use different methods depending on the amount and quality of available data. The evaluations are prepared by the country manager with help from the project managers and, sometimes, consultants. Focus groups may be used with representatives from partners, staff, MEDA advisers, and clients. MEDA has been using this system for about ten years.

Currently, the information from the evaluations is compiled manually and in some, but not all years, an impact assessment report is prepared. Previously, a spreadsheet was used to track results against quarterly and annual targets, but changes in the types of products (credit lines) and

project partners made this more complicated.

The impact information is circulated within the headquarters office and shared with field offices/partners. The information has been used to identify the need for changes in implementation of existing projects, strategic planning for the organization, and selection of partner organizations.

Sources of information on microenterprise program impacts include initial and repeat applications for financing, business plans, field officer site visits, midterm and final evaluations, sample surveys or rapid appraisals, and program staff estimates. For the most part, the system focuses on economic impacts on the business of microenterprises that are directly assisted, including changes in assets and employment. Sometimes, anecdotal information is reported on other levels and types of impact. The indicators are quantitative and are compared to targets, but are not disaggregated by gender.

The annual evaluations are typically 10-15 pages and examine the following impact issues in addition to project management, strategy, operations, and recommendations:

- Number of families benefiting and multiplier effects
- Number of jobs created or preserved, the potential for additional jobs, and labor displacement
- Average and percent increase in client net equity and income
- Average and percent increase in sales
- Benefits to women
- Environmental impacts
- Significant changes in the communities
- Perceptions about social impacts and program design
- Financial viability of businesses and institutions
- Time before MEDA can exit
- Returns to clients compared to invested capital and total program cost
- Cost per job (including net program expense and cumulative capital investment)

A monitoring system was developed for a MEDA program in Bolivia, PRISMA, but it tracks relatively few impact indicators at the enterprise or household level.

National Cooperative Business Association (NCBA)

The National Cooperative Business Association assesses the impacts of its microenterprise programs at least once a year, but has no standard format or list of impact indicators. The main sources of information for the assessment of impacts are business plans and field visits. The impact information is kept on paper in files at the headquarters and field offices, and is not aggregated in a database or report. In general, only the economic impacts on the business of enterprises directly assisted are addressed. Quantitative indicators are used and data are gender disaggregated. However, impact assessment information is not currently well used in decision

making.

Nevertheless, a more extensive impact monitoring system is being used in one NCBA Small and Micro-Enterprise project (SME) working with four foundations in Egypt. It tracks the main use of the loan in some detail: equipment, wages, debt consolidation, raw material purchases, temporary workers, regular workers, overtime pay, or other.

The SME project collects information on the assisted enterprises with respect to changes in legal status, the quantity and quality of goods and services produced, employment and wages, sales, net revenues, and owner income. There is a single question on the value of sales for the previous month. Enterprise expenses are categorized and summed. Employment data cover the number of permanent and temporary workers, both full-time and part-time and disaggregated by gender. At the household level, the system is limited to whether the last loan resulted in an increase in income and, if so, how the increase was used.

Extension officers use a short, structured questionnaire to monitor a sample of all borrowers over time. The extension officers judge the accuracy of each respondent's answers and a local professor reviewed the questionnaires submitted by the extension officers**.** Clients are asked to list problems with the loan program, reasons why they dropped out of the program (if applicable), and their business needs beyond the scope of the program. Enterprise employment, average monthly wage payments, and average monthly sales and expenses are subdivided by services, trade, and manufacturing. The legal status of the enterprise is examined in several ways -- various types of licenses, payment of taxes and social insurance, and bookkeeping methods.

While the use of extension officers to collect data may increase the chances that borrowers respond to the frequent questionnaires (administered monthly), this approach could easily introduce bias. It is quite likely that borrowers may provide the extension officers more favorable responses because they are dependent on them for further services. No data are collected on comparison groups.

The SME project undertook considerable efforts to include all stakeholders in the selection of indicators. It also took the time to pretest the questionnaire with clients from all enterprise types. The sample of borrowers included is selected carefully and is large enough to allow statistically significant conclusions to be drawn. Provision was made for high drop-out rates (up to 75%) in setting the sample size. The sample was stratified by size (small or micro) and type (trade, services, and manufacturing).

From the start, a variety of stakeholders were involved in the design and implementation of the SME system -- donors, the technical assistance team, and individuals at various levels in the implementing foundations. The team carefully reviewed alternative research designs and weighed their advantages and disadvantages from a methodological and logistical viewpoint.

The monthly reports present cumulative information on the sample and are intended to

highlight key items for a cursory review by managers and donor staff. Outcomes (including changes in revenues and employment) are analyzed by type, but not size of enterprise, providing some useful information on how they vary. While the simple format increases the likelihood that the reports will be read and used, the data appear to be underutilized.

SME has developed an innovative training manual on impact assessment for extension officers, branch managers, and liaisons. Training consists of one day in the classroom and one day in the field and addresses how to check for data quality.

Opportunity International

Opportunity International presently assesses its microenterprise program impacts on a quarterly basis following a standard format that is still in the pilot phase. This format was formally adopted one year ago, but had been in informal use for many years before that. The organization had previously used a less standardized approach in assessing impacts.

Under the current system, impact information is collected at the headquarters office and compiled in a computerized database or Management Information System that combines impact information with other information on loan program activities. Reports on the organization's impacts are circulated within the headquarters office and partners. Information is presented in tables and graphs for each partner organization.

Opportunity International's system addresses impacts on the business of enterprises directly assisted and focuses on outreach and employment (jobs created or preserved). It does not deal with income changes in assisted enterprises. It relies on quantitative indicators, compares achievements to targets, and disaggregates data by gender. The system deals most extensively with characteristics of the loan funds. Some of the regional offices may occasionally collect more information than is required by the headquarters office.

The information for the system comes from baseline studies, initial and repeat applications for loans, field officer visits, and program records. The system has been used in identifying the need for changes in project implementation, allocating resources to new and existing projects, strategic planning for the organization, designing new projects, and selecting partner organizations.

The system collects information on project partners (earned revenues, donor revenues, and expenses by category); their credit fund portfolios (loans made and loans available, devalued portfolio, loans receivable, the gender distribution of individual and group loans); the number, hours, and participants in training seminars; and staff visits to clients. A ratios analysis is calculated for the loan program's operational and financial sustainability and survivability, effectiveness and efficiency in loan operations, cost (lending operations and total expenses) per job, effective interest rate, market share of the credit program, percent of portfolio in reserve or from borrowed funds, the repayment rate, and average loan size.

Background information is presented on exchange rate changes, the annual inflation rate in the United States, the national per capita income, and estimated number of clients in the target group. The impact information is limited to jobs created or sustained and while this is reported separately for men and women, it is not broken down into part-time and full-time.

Save the Children

Save the Children conducts midterm and final evaluations of its microenterprise programs and also monitors impacts at least once a year. Although it has not required a standard format or list of indicators to date, a new impact information system is in the process of being tested. Until now, impacts have been assessed in special studies with the collaboration of consultants and research institutions based in the United States and program countries. Some of these efforts have been very large cross-sectional or longitudinal studies (25,000 individuals in Bolivia and in Mali and over 2,500 in another study in Bolivia). Existing sociodemographic and health data, censuses, surveys, focus group discussions, in-depth interviews, and participant observation techniques have been used to obtain quantitative or qualitative information.

Information on impacts is circulated within the head office and field office/partner staff, and also provided to donors and external audiences. Impact reports are generated less frequently than once a year. Impact data have been used to identify the need for changes in project implementation and the design of new projects.

The proposed new system uses quantitative and qualitative indicators, compares achievements to targets, disaggregates data by gender, and reflects the organizations' mandate to help children less than 16 years of age. The information will come from baseline studies, applications for loans and repeat loans, field officer visits, sample surveys or rapid appraisals, and program records.

A baseline survey questionnaire has been developed to obtain a roster of household members listing gender, age, education, and occupation; housing ownership and size; water source; assets (including agricultural land and livestock); participation in development assistance programs; amount and uses of all loans within the past year; responsibility for care of children; number of customers served by the enterprise; wage rates; training needs from the program; who influenced them to take out a loan; plans to take another loan or not and reasons why; and number of program meetings missed last season.

The draft manual on monitoring and evaluation prepared for Save the Children recommends a series of data collection efforts for ongoing projects: 1) monthly monitoring of group finances, 2) monthly visits by field coordinators, 3) a random sample of enterprises at least once a year, 4) a random sample of participating and nonparticipating households at least every 2 years, 5) occasional focus groups of clients (1-4 focus groups with 10-12 participants per issue and lasting 1.0-1.5 hours), and 6) focus groups of all staff divided into groups of 10-12.

The manual suggests determining the sample size for surveys systematically through the

computer program EPInfo, but advises having 100-200 valid surveys per key population segment. Field offices can decide whether to obtain time series data on a single sample of participants or a new sample at each point in time (the former can be more reliable, but logistics are easier for the latter). The manual recommends analyzing impact data in a statistical package (SPSS or Excel), tabulating by loan cycle, promoter, and program.

Various levels of impact are addressed in the proposed system: the business of microenterprises directly assisted, owners and workers of these enterprises and their household members, the local villages and communities, policy changes, the sustainability of groups, and the financial sustainability of programs. The types of impacts considered include outreach, economic impacts (gross and net income, changes in assets, and employment), social impacts (nutrition, water supply and sanitation, health status, education, housing and material goods), and allocation of time to microenterprises.

For each category of impacts, a minimum set and an additional recommended set is specified in the proposed system:

- **Enterprises**
- **Minimum Indicators**

! Change in sales value
! Change in business profits (or sales and profit margin)
! Change in the source of financing

- **Additional Indicators**

! Change in full-time paid workers
  - **!** Change in fixed assets of enterprises (land, facilities, and tools -- not necessarily a benefit if capital is substituted for labor)
  - **!** Change in current assets of enterprises (cash, raw materials, goods in process, and inventory -- but this is often difficult to measure)

! Change in management practices (accounting, inventory system, and personnel policy)

- **Households**
- **Minimum Indicators**

! Change in expenditures on food, clothing, and other basic needs
! Change in housing construction or electricity, water, or sanitation services

- **Additional Indicators**

! Change in amount and percent contribution of the enterprise to household income
! Change in cash savings
! Change in number and value of other household assets (including livestock)

- **Social Impacts on Women**
- **Minimum Indicators**

- Change in the time allocation of the participant and spouse
- Increased value of program savings
- Greater involvement in household decision making
- Membership in additional community or civic organizations
- New leadership roles in community or civic organizations
- Increased spending on purchases for self

! **Social Impacts on Children**

! **Minimum indicators**

- Change in child labor
- Change in number and percent of school-aged children in school
- Decreased gap between school enrollment of girls and boys
- Increased school attendance rates for girls
- Decreased gap between school attendance rates for girls and boys
- Improved nutritional status of children 1-3 years of age
- Decreased gap between nutritional status of girls and boys 1-3 years of age
- Aspirations for girls
- Aspirations for boys
- Value of last item purchased exclusively for children from microenterprise profits

! **Program Sustainability**

! **Minimum indicators**

- Drop-out rate of individuals and groups
- Net growth in number of groups and membership
- Attendance rate at member meetings
- Average loan arrears rate
- Savings growth rate
- Growth in loans outstanding
- Percent of program costs covered by loan interest and earned revenues
- Evidence of group self management

! **Policy Impact**

! **Minimum indicators**

- Regulatory recognition of programs
- Requests for program expansion to other parts of the country
- Replication by government or NGOs
- Transfer of responsibility for program to a local NGO
- Transfer of loan portfolio to formal financial institutions
- Increased access of participants to formal financial institutions
- Staff hired for technical assistance in credit program design, implementation, and evaluation
- Government regulations facilitating bank microenterprise lending

Save the Children's proposed monitoring and evaluation system is very comprehensive in the types of impacts it addresses, which is a strength, but it would be relatively costly and time-consuming to implement and would require substantial technical capacity in data collection and analysis. The size of the survey samples recommended allows for statistical significance testing, but would only be justifiable for a large NGO program. A proposed annual monitoring and evaluation report would discuss achievements in activities and impacts, problems, and proposed actions.

TechnoServe

TechnoServe has primarily assessed the impacts of its projects through midterm and final evaluations, as required by donor agreements or as needed for management purposes . In addition to the evaluations, the organization has obtained impact from other sources that vary across projects, including baseline studies, diagnostic studies, business plans, sample surveys or rapid appraisals, and program records. TechnoServe is currently retooling its monitoring and evaluation systems to do this more systematically and streamline and standardize the process.

To date, TechnoServe's evaluations have emphasized direct impacts on the enterprises and owners assisted and indirect impacts on others whose economic activity has increased as a result of the project. Some data have also been regularly collected on individuals who are owners and workers of assisted enterprises and their households and on community services. The types of impacts examined include outreach and various economic indicators such as net income, value added, changes in assets, and employment. While quantitative data have been emphasized and achievements were compared to targets, qualitative data have also been collected. Some of the impact and outreach information is disaggregated by gender.

TechnoServe counts as **clients** the members/owners of the enterprise or institution assisted, all of their respective employees, and others who directly benefit from TechnoServe=s assistance, with adjustments to avoid double counting. It counts as **direct beneficiaries** clients and all of their other family members who directly benefit from household income or production gains. TechnoServe also counts **indirect beneficiaries** who benefit from the increased economic activity or quality of life improvements resulting from the project even though they are not clients or family members of clients. These indirect beneficiaries include people outside of the assisted groups who increase their production or benefit from services as a result of infrastructure development, receive income from services contracted by the assisted enterprises, or are employed by other businesses that heavily depend on assisted enterprises for sales or purchases.

Since 1988, TechnoServe has been using a computerized Field Operations Database (FDB) to monitor activities. Before that, it had used a different manual system for tracking key management and activity data for community-based enterprises called the Quarterly Progress and Operations Report (QPOR). The QPOR system was eventually computerized and expanded into the current FDB system.

The FDB was originally designed for program management and performance tracking of

community-based enterprise development projects. FDB data were collected quarterly and linked to accounting data so that project performance data and project cost data can be printed on the same report. In 1991, the system was updated to include performance monitoring data on other project types, including institution building and training. It was also expanded to include more comprehensive baseline, cost-effectiveness, post-graduation, and sustainability data.

TechnoServe has been an early leader among U.S. PVOs in electronic data exchange among field offices. Although the FDB was not designed to systematically report on impacts, it did contain some impact indicators. Data collection and data quality reviews have presented bigger challenges than anticipated by management, but once the data were in, they were made available on line to managers and other users. Customized reports were generated as needed in a variety of ways. While the system was flexible, some software programming became necessary to adapt it as needs changed.

The FDB contained the following general information on all projects:

- Country information (population, per capita GDP, illiteracy rate, minimum wage
- Executive summary of the annual country plans
- Monthly management reports (requests for assistance and investigations for assistance
- Monthly country updates
- Contracts tracking
- Cost-effectiveness studies (dates, results and the ratios)
- Sustainability studies (dates, number of graduated enterprises studied and percent operating)
- List of training activities

For projects that developed community-based enterprises, the FDB also tracked 1) baseline studies, 2) quarterly planning documents, 3) actual quarterly data, 4) project graduation data, and 5) project post-graduation report. It used FoxPro's relational database capabilities and WordPerfect for text attachments. Information was transmitted between field and headquarters offices using email or the Internet.

The organization found the FDB system valuable in transferring data from the field offices to the head office, but less suitable for meeting local monitoring needs, except in a few selected programs. It has mostly been used to identify the need for changes in the implementation of existing projects, allocation of resources to new and existing projects, and strategic planning for the organization when complemented with other management information and monthly narrative reports.

TechnoServe recently concluded that standardization of impact indicators had become more difficult due to the increased diversity of the organization's activities, which now includes institution building, short-term interventions, and other project assistance in addition to community-based enterprise development. In addition, the diversity of projects within each of these classifications had also increased, making it necessary to design a new monitoring and

evaluation system more tailored to the current programs.

The new system is expected to be operational by the end of 1996. It will contain most of the same indicators as the older FDB, except that they will be divided into Arequired core indicators@ and Aoptional specific indicators@. In addition, the new system will focus more on impacts and cost-effectiveness and less on activity tracking than the FDB. Data will be collected semi-annually. TechnoServe plans to continue monitoring some of the indicators after the organization has completed providing assistance to the enterprises. At the time of this study, the list of **required core indicators** was being finalized through a participatory process and tentatively included the following:

- **Local investment and stake:**
  1. Membership fees paid by owners/members to enterprises or institutions
  2. Equity capital contributed by owners/members to enterprises or institutions (excluding donor-contributed capital)
  3. Credit leveraged by TNS efforts from non-TNS sources

- **Outreach:**
  1. Number of enterprises assisted directly and indirectly through institutions
  2. Number of institutions assisted
  3. Number of clients, direct beneficiaries and indirect beneficiaries, disaggregated by gender and adjusted for double counting

- **Impact:**
  1. Household income changes
  2. Enterprise income changes
  3. Employment generated or sustained, disaggregated into part-time and full-time and also by gender (but only including unpaid family members' labor when they can be clearly shown to benefit)
  4. Total market final value of products produced, processed, stored, and/or marketed.

- **Cost-Effectiveness:**
  1. Average cost per dollar of household income increase
  2. Annual cost per direct beneficiary
  3. Annual cost per enterprise assisted
  4. Annual cost per institution assisted

- **Sustainability:**
  1. Percent change in enterprise net worth over the year.

Project-specific indicators will be selected from the system's larger menu of indicators as needed to fit the project design and reporting requirements. All of the data requirements for full impact, cost-effectiveness and sustainability studies will be defined up-front and recorded as project-specific indicators. Impacts will be calculated by comparing baseline data on these

indicators to values at the time of reporting. In selected cases, a **sustainability analysis** will be conducted to estimate the proportion of the enterprises still in business at least 3 years after the conclusion of TechnoServe assistance.

The new system will run on the Lotus Notes database. Lotus Notes has several advantages over FoxPro for geographically dispersed operations, including intuitive end-user interface; quick and efficient database design tools; the ability to synchronize databases in multiple locations; and the capacity to extract data and present it in a variety of ways to meet user needs.

TechnoServe uses impact and cost information to calculate cost-effectiveness ratios for key projects or project components (Bowman et al. 1993). TechnoServe's definition of **cost effectiveness** combines quantifiable financial information on benefits and costs with subjective qualitative ratings. The financial benefits are the net value added as a result of the project and are projected forward ten years comparing estimates with and without the project.

Net value added consists of increases in the 1) incomes of farmers (including home consumption) and enterprise owners; 2) enterprise net incomes before dividends, mandated reserves, reinvestment, or taxes; and 3) salaries, wages, and benefits for employees and contractors. Tax payments are presumed to be part of the social benefit of an economic activity. The net value added is not adjusted through shadow pricing of capital, or foreign exchange, but in some cases an opportunity cost is imputed for unpaid agricultural labor. The present value of the incremental financial benefits is then calculated.

TechnoServe calculates the cost of its assistance less cost recovery from fees paid by the enterprise. It does not consider costs borne by other organizations or government agencies in this calculation, but similarly it only estimates the benefits that can be attributed to its own assistance. The costs are projected for 10 years and converted to a present value of the organization's net cost. The cost effectiveness ratio is the present value of the incremental financial benefits divided by the present value of TechnoServe's net costs.

A Non-Quantifiable Benefits Rating Sheet (NQBR) is also used to consider other social, economic, and policy benefits under the following categories, each of which is weighted by a relative importance factor (figures shown below in brackets are illustrative and vary depending on the project=s objectives):

- **Social Benefit**
  - Improved managerial and technical skills [5]
  - Increased access to public services [4]
  - Increased control over quality of life [3]
  - Greater participation for marginal groups (women and minorities) [2]
  - Increased community solidarity [1]
- **Economic Benefits**
  - Increased and sustainable productivity [5]
  - Enterprise replicability [4]

- Increased enterprise sustainability [3]
- Increased employment [2]
- Improved backward and forward linkages [1]

- **Policy Benefits**
  - Improved national policy environment for rural enterprises [3]
  - Regional commodity sector policy impact [3]
  - Institutional policy impact [3]

Three to five people are asked to independently assign subjective ratings for each of the above items. The raters include field advisors, beneficiaries and external objective professionals (i.e. consultants or colleagues). The rating scale is 0-9 for a negative effect, 10 representing a neutral effect, and 11-20 for a positive effect. Each person's score on an item is multiplied by the corresponding weighting factor. Since everyone's opinion is counted equally, an average weighted score calculated for each item and summed up to give the NQBR.

There may be some overlap between the subjective ratings for economic benefits and items counted as quantifiable economic benefits. The NQBR is not factored into the cost-effectiveness ratio, but is considered as a separate indicator. Some projects do well on both indicators, but that is not necessarily the case. While TechnoServe has found these two indicators useful in analyzing project results, it does not consider them a substitute for other monitoring and evaluation tools and the judgment of project staff.

Trickle Up

The Trickle Up Program's impact information system consists of a one-year update; five-year report; and special surveys done for baseline studies, midterm evaluations, or final evaluations of programs. All assisted enterprises are asked to answer seven questions twelve months after receiving business training and seed capital. Since many of the clients are illiterate, program coordinators ask the questions and submit the form to the headquarters office. The coordinators are informed when the information is due for each entrepreneur. The items are:

- Is the enterprise continuing? If not, why?
- Has the enterprise expanded?
- Amount saved
- Number of workers
- Is the enterprise the main source of income for the entrepreneur?
- Benefits obtained
- Better food
- Improved housing conditions
- Increased school attendance
- Better clothing
- Improved business skills

- Date form was completed

Previously, Trickle Up asked about enterprise profits, but this was eliminated since most clients do not keep written records**.** The organization plans to revise the one-year update form to 1) indicate when enterprises cannot be found, 2) list multiple choice reasons why enterprises have stopped operating, and 3) clarify definitions of benefits and standardize responses to match the three-month business report and the five-year report. The information from the one-year update is entered into a computerized database at the headquarters office.

Coordinating agencies are asked to collect a larger amount of information on enterprises five years after the initial assistance. This form is supposed to be completed by the business group. More problems have been encountered in gathering information at this stage because enterprises are harder to find and partnerships with some coordinating agencies have ended. A computerized database has not yet been developed for data from the five-year form. In addition to the questions on the one-year update, the five-year form asks:

- How long the business has lasted
- Current activities of the original group members
- Number, gender, and age of current business members
- Number of original members still in this business
- Average net enterprise income (profits) per week
- Whether profits have increased compared to five years ago (and if so, why?)
- Whether the program helped the enterprise (and if so, how?)
- Other sources of income for the members
- Whether the enterprise has borrowed money since the grant
- Whether the Coordinator has maintained contact with the enterprise over the past five years (if so, type of support provided)
- Main reasons for the success of the enterprise
- Whether the enterprise has benefited others in the community and how?
- What has happened to the enterprise over the past five years, problems faced and how they were solved, advice to other entrepreneurs

The Coordinator is asked to certify the information's accuracy.

Baseline and impact surveys have been done for Trickle Up programs in the Philippines, and are underway in Ecuador, Guatemala, Uganda, and Nepal. The Philippine survey was administered as a baseline and after eighteen months and thirty-six months. A different questionnaire is being used in the two Latin American countries for enterprises that have received assistance at least one year earlier, including those that have stopped operating. A much longer questionnaire is being used in Uganda and Nepal as part of an ILO research project. It will be administered before assistance is provided and at six month and twelve month intervals.

World Vision Relief and Development

World Vision is an international partnership with many separate offices that receive technical and managerial support from regional units. As a result, it has no center with information on the impacts of all of its microenterprise programs. Also, its microenterprise development activities often take place in conjunction with broader community development activities, making it difficult to extract information on the microenterprise components alone.

Some of its programs in the Latin America/Caribbean region that have the most experience with small enterprise development are monitoring some impacts. Programs in the other regions do not usually monitor impacts of microenterprise activities. However, the U.S. offices do not presently have much documentation on impact assessment in the Latin America/Caribbean programs, although it was noted that there is interest in establishing such systems for other regions.

A computerized MIS is used to compile information on impacts and activities of some of the Latin America/Caribbean programs for the past 2-3 years. The data are shared at the national and regional offices**.** Impacts were generally addressed at the level of the enterprises assisted and their owners and workers. Usually, the types of impacts included outreach, changes in assets, and employment. The indicators were quantitative and the number of clients disaggregated by gender.

The data generally comes from initial and repeat loan applications, field officer visits, evaluations, and program records. Reports on microenterprise programs are generated monthly, but only a minority of programs are submitting information, making them difficult to use in decision making other than at the country-program level.

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REFERENCES

ACCION-US. 1995. Starting and Working with ACCION's GMS Software. Washington, DC: ACCION.

Barnes, Carolyn. 1996. Assets and the Impact of Microenterprise Credit Programs. Washington, DC: Management Systems International, Prepared for the AIMS Project.

Bowman, Margaret; Jorge Banaante; Thomas Dichter; Steve Londner; and Peter Reiling. 1993. "Measuring Our Impact: Determining Cost-Effectiveness of Non-Governmental Organization Development Projects". Norwalk, CT: TechnoServe.

Burnett, Jill. 1995. "Summary Overview of PRODEM Impact and Market Analysis Project." Toronto: Calmeadow.

Chen, Marty; Elizabeth Dunn; and Melissa Day. 1996. Household Economic Portfolios. Washington, DC: Management Systems International, Prepared for the AIMS Project.

Davies, Philip. 1996. Qualitative Tools and Microenterprise Impact Evaluation. Washington, DC: Management Systems International, Prepared for the AIMS Project.

Dunn, Elizabeth. 1996. Households, Microenterprises, and Debt. Washington, DC: Management Systems International, Prepared for the AIMS Project.

Dunn, Elizabeth; Nicholas Kalaitzandonakes; and Corinne Valdivia. 1996. Risk and the Impacts of Microenterprise Services. Washington, DC: Management Systems International, Prepared for the AIMS Project.

Espinosa, Alberto. 1996. Documentation of Field Project Database. Norwalk, CT: TechnoServe.

FOMMI. 1995. SIMMI -- Sistema de Monitoreo y Medicion de Impacto. San Salvador: Programa de Fomento de la Microempresa en las Zonas Marginales.

Gaile, Gary and Jennifer Foster. 1996. Review of Methodological Approaches to the Study of the Impact of Microenterprise Credit. Washington, DC: Management Systems International, Prepared for the AIMS Project.

Gibbons, Catherine. 1995. Group Guaranteed Lending and Savings (GGLS) Program Monitoring and Evaluation System. Westport, CT: Save the Children.

Hyman, Eric. 1983. "How to Conduct a Rural Energy Survey in a Developing Country." Renewable Sources of Energy 1: 137-149.

Hyman, Eric. 1985. "The Monitoring and Evaluation of Forestry Projects for Local Community Development." 19: 139-160.

Inserra, Anne. 1996. Measurement of Microenterprise and Household Income. Washington, DC: Management Systems International, Prepared for the AIMS Project.

InterAmerican Foundation. 1995. Summary of Basic Elements of the RESULTS System. Rosslyn: InterAmerican Foundation.

Lewin, A. Christopher. The ADEMI Approach to Microenterprise Credit. Bethesda, MD: Development Alternatives Inc. (GEMINI Report).

MkNelly, Barbara. 1995. The Quarterly Credit Association Monitoring System. Davis, CA: Freedom from Hunger.

Microenterprise Impact Assessment Consortium. 1996. Core Impact Assessment Strategy for the Microenterprise Impact Project. Washington, DC: Management Systems International/Harvard Institute for International Development/University of Missouri/Small Enterprise Education and Promotion Network.

Nelson, Candace; Barbara MkNelly; Kathleen Stack, and Lawrence Yanovitch. 1996. Village Banking: The State of the Practice. New York: Small Enterprise Education and Promotion Network/United Nations Development Fund for Women.

Richie, Anne. 1995. Impact Evaluation of Income Generation Projects. Dacca: CARE-Bangladesh Income Project.

Sebstad, Jennefer and Gregory Chen. 1996. Overview of Studies on the Impact of Microenterprise Credit. Washington, DC: Management Systems International, Prepared for the AIMS Project.

SEEP/Calmeadow. 1995. Financial Ratio Analysis of Micro-Finance Institutions. New York: Small Enterprise Education and Promotion Network.

Stallard, Janice. 1995. Designing an Impact Tracking System: Experience from a Small and Micro Enterprise Project. Washington, DC: National Cooperative Business Association.

Stallard, Janice and Dalia Hady. 1995. Training Manual: SME Project Impact Tracking System. Washington, DC: National Cooperative Business Association.

Stosch, Lisa and Eric Hyman. 1996. Impact Tracking System Guidelines. Washington, DC: Appropriate Technology International.

Waterfield, Chuck. 1996. Manual de Operacion Del Sistema De Computacion Del Programa De Incentivos y Soportes a Las Microempresas "Prisma". Waterloo, Ontario: Mennonite

Economic Development Associates.