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# The SEEP Network

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Technical Assistance and Training: What Difference Does It Make?  
How Can It Be Done Effectively and Affordably?

Report of a Working Session

of the

SMALL ENTERPRISE EDUCATION AND PROMOTION NETWORK

October 13, 1988

New York

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Technical Assistance and Training: What Difference Does It Make? How Can it Be Done Effectively and Affordably? These were the questions twenty-eight participants from SEEP Network agencies met to address on October 13 at Catholic Relief Services in New York. Our interest in the questions emerged from two related challenges. The first challenge was a self-imposed one: the Network has set for itself the task of examining the major elements that make for good small enterprise development with a view to improving PVO performance. The second challenge was an external one. In recent years, the role of nonfinancial assistance as an appropriate mechanism for small enterprise support has been seriously questioned. Critics, including such researchers as Malcolm Harper and Peter Kilby, have cast doubt on the effectiveness and cost-benefit of these programs. And, the report of the World Conference on Microenterprises,\* while noting the strong differences held by the participants, indicated that "no general hard evidence has emerged that beneficiaries of . . . programs [providing technical assistance and training] perform better." At the same time, the vast majority of programs, particularly among NGOs, continue to provide integrated packages of financial and nonfinancial assistance.

What, then, is the reality? What can an examination of PVO experience tell us?

It is against this backdrop that we convoked the October 13 session, viewed as a first step in pooling together PVO experience with nonfinancial assistance. The objectives for the meeting were:

- to consider current strategies and their capacity to address key issues such as focus, cost effectiveness, sustainability, scale, and policy impact,
- to identify criteria for effectiveness in this area, and
- to explore how we can cooperate to improve PVO programs

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\* Levitsky, Jacob. Summary Report of the Committee of Donor Agencies for Small Enterprise Development, World Conference on Microenterprises, June 6-9, 1988, pp 18-19

## METHODOLOGY

The methodology we adopted to begin our exploration of the subject contained the following elements:

(1) We invited SEEP member agencies to present working papers focussing on a number of issues impact, cost-effectiveness, achieving scale and policy impact, etc. Eight members responded positively to this request. Their contributions included

- . Meg Bowman, Cost Effectiveness: measuring the impact of training and technical assistance

Alicia Ritchie and James Cawley, Non-Financial Assistance to the Small Enterprise Sector. The IVS/Caribbean Program

- . Stephen H Gross, Accion Affiliates' Approach to Technical Assistance and Training. What difference does it make? How can it be done effectively and affordably?

Eric Hyman, ATI's Macro-policy Activities as Non-Financial Assistance

- . Suzanne Kindervatter, From Effectiveness to Efficiency: The Challenge of Scale in Assisting Rural Women Pre-Entrepreneurs

- . Fernando Cruz-Villalba, Technical Assistance and Training. Bringing the MBA to the Barrio

Lawrence Yanovitch, Seeking to Balance Effectiveness, Efficiency and Affordability in Small Enterprise Management Extension: The Case of CRS/Tunisia

Hugh C. Allen, Technical Assistance Training. What Difference Does It Make? How Can It be Done Effectively and Affordably? CARE's Experience in Promoting Stove Manufacture in the Sudan

These papers were circulated to all participants and the resource people prior to the session, and served as the initial "database" for our discussions. The guidelines suggested for the presentation of the papers, and the papers themselves are included in the Appendix.

(2) Cheryl Lassen, a small enterprise specialist well known to SEEP members, was invited to make a keynote address to the participants presenting, from her perspective, the major issues PVOs need to confront in providing nonfinancial assistance. Her remarks, "Non-Credit Assistance to Small Enterprises Will it Survive? Can it Flourish?" are also included, in full, in the Appendix.

(3) Professor Bishwapriya Sanyal, Ford International Associate Professor in the Department of Urban Studies and Planning at the Massachusetts Institute of Technology, reviewed the papers and

provided a commentary on the issues he found in them. His remarks, and those of Cheryl Lassen, served to provoke and give direction to the discussion which occurred during the working session.

(4) During the day, participants met in small groups twice and in plenary to discuss the issues raised by the papers and resource people, and to suggest next steps in this study process. A summary of their comments is included below.

### THE ISSUES - AS SEEN IN THE KEYNOTE AND COMMENTARY

Cheryl Lassen opened her remarks by acknowledging the value of nonfinancial assistance, its necessity when trying to reach very poor people. At the same time, the donor and practitioner community is so caught up with credit approaches that she fears that alternatives may disappear from the gene pool. How can they be valued again? The answer to that lies in developing an appropriate response to the policy context of today—one marked by economic rationalism and the reduction of aid flows. Within that context, PVOs are faced with three challenges: (1) reaching the poorest (their social mandate), (2) providing services that are effective in developing economic activity among high risk beneficiaries; and (3) decreasing dependence on foreign aid. PVOs can meet these challenges by developing more "competitive" approaches to nonfinancial assistance, that are needed, affordable, achieve a certain level of visible benefits, and are financially viable.

How can this be done? Cheryl offered a series of prescriptions:

- (1) Begin with a strong vision of what is needed and where we want to be several years from now. This vision should include an understanding of who we want to serve and how, and a commitment to viability from the outset.
- (2) Develop management systems that will promote a results orientation by enabling you to
  - identify and track benefits, both quantitative and qualitative,
  - project and then gather information regarding management indicators such as client load, cost per unit of benefit, cost recovery and cost control,
  - introduce and succeed at generating user fees,
  - develop differentiated tracks of service delivery for different clienteles,
  - adopt a "portfolio mentality" as a way to reduce the risks inherent in serving only the poorest, and
  - increase the scale of operations over time to generate sufficient revenue to sustain a program.

Cheryl also noted that programs evolve, and that performance standards are required for each stage of their development. Her own experience has been to allow 5-7 years for the achievement of "a package of effective, efficient and affordable services, and a local organization that can deliver them on an on-going basis. That is not to say that all subsidy should be removed," but grants should be required at much lower levels. Finally, Cheryl concluded her remarks by presenting a Checklist of Variables for Program and Economic Viability. Participants were asked to rate themselves on each of the 15 items included on the list. The checklist is included in the appendix with the full text of Cheryl's remarks, and a tabulation of participants's responses is also included in the last section of this paper.

Bishwapriya Sanyal prefaced his remarks with the comment that "reading the papers was like deja vu, like reading something I had read before." And he proceeded to identify a number of issues which he felt were the same ones raised during the 1950's - 1960's in the literature regarding the economic development of Third World countries. These issues included:

- (1) a stress on firms doing well; he called this a modified trickle down demonstrating the logic that, if you help a higher group, the people on the bottom will benefit.
- (2) a focus on the internal constraints of firms versus external constraints. He saw this as similar to the concept of the "irrational peasant" identified by 50's writers who emphasized training as a road to modernization
- (3) a stress on efficiency/cost-effectiveness. In the 1950's many government projects were evaluated on these grounds, motivated by a concern for scarce resources.
- (4) a linkage with government and a need to influence policy.
- (5) a stress on the value of a "new" methodology. cost-benefit analysis. In the 1950's there was great faith in the predictive power of these tools. Their "scientific, neutral" qualities were valued

He contrasted all these positions, which he found in the papers, with the notions of the 1970's which emphasized, instead,

- (1) reaching the poorest of the poor, and an emphasis on equity and basic needs: supporting business growth had not resulted in trickle down, so a direct approach was called for.
- (2) changing external constraints, laws and regulations, such as pricing, that make it difficult for the poor to benefit. This was based on the belief that people do manage their production and consumption very well in terms of what they have
- (3) defining efficiency as social efficiency. Something, such as equity, that starts out expensive can work toward social efficiency in the long run

- (4) delinking from government. Governments, seen as agents of change in the 50's, were viewed as major barriers to change. There was a disenchantment with autocratism. Neither democracy nor capitalism were flourishing so aid agencies tried to bypass the bureaucracy and go straight to the grassroots.
- (5) a rejection of technocratic methods. Academic circles currently give little legitimacy to cost-benefit analysis. The calculations are very hard to make and provide little "real" information. Academics are now seeking new methods, such as institutional analysis, aimed at generating a detailed knowledge of how to unfold a process, of what changes occur when you attack certain blockages.

Bish asked "why are we returning to the old notions?" There needs to be an understanding of the trade-offs, dilemmas you face when you try to be cost-effective. The comparative advantage of PVOs has always been different than that of governments and large donors. Their virtue has resided in their capacity to achieve equity, to experiment and to be flexibly responsive (rather than hamstrung by accountability) in their approaches to delivering services. If PVOs have not been as cost-effective as they could be in providing nonfinancial assistance, are there not rational bases for the choices they have made, much like the "irrational peasants"? A more powerful understanding of PVO efforts in providing nonfinancial assistance could be achieved by studying why certain choices have been made at certain moments in the evolution of programs.

Bish also raised another set of questions regarding the papers. In his mind, they did not adequately address

- the subsidization of technical assistance. Why are not clients paying for these services? Is it not a market-driven need? Is it not given in the way they need it?
- when technical assistance is required, and in what sequence with credit.
- whether an integrated approach is actually necessary. The evidence supporting single focus interventions still remains strong to him.
- how programs can respond to the varying needs of different clients, businesses, countries, etc.
- how training the staff of intermediary organizations can be done in a manner that will motivate their continued participation in development, rather than private enterprise. He also noted that trained promoters can become important stakeholders for the kind of social and economic programs we conduct and can advocate greater support for them within their countries.

Participant response to both Cheryl's and Bish's remarks will be summarized below.

## THE ISSUES - AS SEEN BY THE PVOS

The eight papers presented at the workshop reflect a diverse array of project experience, issues, and writing styles. Each presents an interesting case worthy of study and discussion in its own terms. At the same time, a careful reading of them together reveals a number of common issues which can be summarized around four main themes: Effectiveness, Efficiency, Working through Intermediaries, and Policy Impact. What the papers reveal regarding these themes, and what the discussants contributed to them on the 13th, will be summarized below.

### **Effectiveness**

More than anything else, the papers clearly convey the depth and breadth of impact PVOs seek to achieve with their technical assistance and training. A listing, extracted from them, contains 25 criteria under four separate headings: Business Performance, Economic Impact, Social Benefits, and Institutional/Policy Benefits which PVOs use to judge the effectiveness of their efforts. (See the chart, which follows for the full list). Of course, each project or agency does not use them all, but in most instances, PVOs are, as Cheryl suggests, seeking to achieve a broad array of quantitative and qualitative benefits in their work.

As they do this, participants noted that not all targeted benefits are achieved at the same time. They are obtained in stages. It also takes some experimentation to learn what approach will result in significant impact, when and how. One discussant commented that in implementing micro enterprise programs, we are often the learners and the micro-entrepreneurs are the teachers. It takes time to learn how to be effective. Yet donors pressure agencies to produce from the beginning. There needs to be a better appreciation of program evolution and how this relates to impact.

In addition, participants took a cue from Bish's observation regarding tradeoffs, and noted that not only are there tradeoffs between effectiveness and efficiency, but between different types of benefits as well. Two examples serve to illustrate the point.

Technoserve has confronted an instance in Kenya where the social benefits implicit in a tile making cooperative are being undercut by a need to achieve economic viability in a situation of unsure markets.

CRS has been involved with another group in the Dominican Republic where the economic has bowed to social development. Upon receiving a request from a local group for grant funds to support a cooperative bakery, CRS suggested a market study to determine better the financial feasibility of the endeavor, and the capacity of the group to manage a loan rather than grant. The market study was completed six or seven months later, and the beneficiaries took almost one year to review the results. (The group's promoter read the 30-40 page document to the beneficiaries page by page and

TABLE 1

PVO CRITERIA FOR NONFINANCIAL ASSISTANCE PROGRAMS

Effectiveness Criteria

Business Performance  
Viability/Sustainability  
Profits  
Sales  
Product Development  
Assets  
Reinvested Earnings  
Improved Management Practices

Economic Impact  
Employment  
Productivity  
Enterprise Replicability  
Improved Local Economy  
Backward/Forward Linkages  
Scale (numbers of clients,  
levels of production)

Social Benefits  
Decisionmaking  
Family Income Increases  
Family Income directed to food,  
clothing, home improvement,  
education  
Access to Public Services  
Control over Quality of Life  
Participation for Marginalized Groups  
Community Solidarity

Institutional and Policy Benefits.  
Impact on National Policy Environment  
for Rural Enterprises  
Regional/Commodity Sector Policy/Impact  
Institutional Policy Impact  
- influence on banks and technical  
support organizations  
- formation of local affiliates  
and governing structures  
Program Viability  
Program Replicability

Efficiency Criteria

Cost Per Enterprise Assisted  
  
Cost per Net Economic Benefits  
(farmers income,  
enterprise income, salaries  
and wages)  
- projected over 10 years

Cost per Benefits  
(profits, employment,  
investment)  
- achieved at end of  
project period

Cost per Job Created

Production Efficiency-  
Cost per Output  
Price per Unit

Cost Recovery

Increasing Scope

encouraged discussions ) The group finally accepted the loan. The tradeoff was over a year of foregoing potential income while gaining group cohesiveness. The beneficiaries felt that the group would be stronger as a result of the process and better able to benefit from the project.

Beyond suggesting the range of benefits agencies seek, the papers reported some evidence of the type of impact technical assistance and training efforts can achieve.

- CRS/Tunisia's management assistance effort resulted in increases of \$16,700 in sales and \$27,400 in wages for assisted firms;
- Technoserve's cost-effectiveness rating tool has found that 65% of analysed projects were viable, profitable businesses delivering financial benefits beyond what Technoserve had invested,
- CARE's Sudanese Stove Manufacturing Project produces and sells 1,000 efficient charcoal-burning units a month, is continuing to grow in scope, and is expected to have a considerable impact in saving trees and reducing pressure on the seriously damaged environment;
- OEF/International's Central America program has demonstrated a range of economic and social benefits. Of its 325 participants, 88% generate a profit; 66% have increased sales (45% by 100% or more), 67% have doubled their assets; 88% of households increased their incomes, 88% of women now participate in major household decisions, etc.
- IVS's Caribbean program was judged by internal and external evaluations to have contributed significantly to the development of over 150 local organizations and small businesses in the region, particularly assisting local organization in the areas of administrative systems, financial planning and management, and staff training.

In addition, while not providing specific data, 11 respondents, representing 15 Accion affiliates, reported in answer to a questionnaire, that training is an important and effective component of their overall program. Their nonfinancial assistance efforts also include tax seminars, microenterprise expositions, licensing procedures, formation of microindustrial chambers of commerce, public education, legal services, reproductive health care, marketing assistance, group purchase of raw materials, literacy courses, and organization of associations. The richness of this experience is revealing in a program best known for its highly successful credit programs.

Another issue which the papers reflect, again also noted by Cheryl Lassen, is the extent to which effectiveness depends on the appropriate matching of clients and services:

- OEF/International reports that there is a minimum threshold of household resources necessary for the success of microenterprise activities, although much lower than many would have anticipated.
- CARE found that medium-scale producers were more appropriate clients for technology transfer.
- CRS reports that management assistance becomes increasingly pressing as the size and complexity of the operation increases, more likely at the medium scale

While not a full typology, these instances reflect a nuanced understanding of the role of nonfinancial assistance, and the need to match services and clients appropriately. Participants stressed that we need to better develop this understanding, and the sequencing of services as well. To illustrate, it was noted that the clients' cultural background plays an important part in deciding whether technical assistance should precede credit or vice-versa. When clients perceive limited options, then upfront training may be needed to expand their vision.

Discussants also noted that the sequencing of services to achieve greatest impact does not necessarily imply that one agency be competent in providing all services. Fully recognizing the difficulty of integrating distinct agency efforts, some participants saw the possibility of building upon the comparative advantages of each in offering financial and nonfinancial support. This may obviate one potential confusion between the roles of trainer and loan collector, which has been experienced by at least one agency to the detriment of a particular project effort.

## Efficiency

If anything, the major criticism against nonfinancial assistance programs has been that the benefits achieved do not compensate for the costs incurred. Here, the papers demonstrate the serious concern agencies have with this issue, the efforts they have made to address it, and extent to which they have yet to go.

Once again, the papers present a set of criteria agencies use to assess the efficiency (and cost-effectiveness) of their efforts. These criteria are also included on the chart found on page 7. They range from the simple indicator of cost per enterprise assisted to cost per benefits, per job, per output, etc.

Each of these measures has certain value and certain liabilities as well. One participant noted that donors have less interest in the longer term cost per net benefits, and much more in the delivery indicator of cost per participant served. This short-term view puts programs with heavy up-front costs at a distinct disadvantage despite the ultimate level of benefits that may be achieved.

Participants also echoed Bish Sanyal's criticism of cost-benefit tools, noting the inherent difficulties in achieving accurate information. In a further clarification of his position, Bish noted that despite these problems, the tools still can serve a useful purpose

- as a learning tool for PVOs and clients, enabling them to develop an approximate understanding of the costs and benefits of their efforts, and
- as a means of communication with funding sources, who view agencies comfortable with these tools and language as competent program implementors.

Despite the difficulties, when it actually comes to judging cost-effectiveness, the papers demonstrate that the agencies have been able to use the tools to verify real gains

- CRS in Tunisia achieved benefits ten times the cost of the consultancy provided during Phase I, and there is some indication that the benefit-cost ratio will reach 148:1 among firms assisted during Phase II. The cost per job created was \$800
- Technoserve reports benefit-cost ratios of 1.75 to 29.25 for its evaluated businesses when projected over a ten year period

At the same time, costs per assisted business often remain high, especially during the early years of a program.

- CRS/Tunisia expended \$2,900 per assisted business during the two years of Phase I, and \$2,275 during the two years of Phase II
- OEF/Costa Rica expended \$4,070 per business during a Phase I period of three-four years.

In both cases, targets for the next phase are much lower: \$1,550 per microbusiness and \$750 per small/medium business for CRS, and \$503 for OEF. These projected targets are based on refinements in methodologies and management systems introduced with the learning that came from previous experience, and in increasing the client base.

The challenge of reducing costs remains a formidable one for PVOs. One participant noted that to achieve economies of scale, programs cannot be small. They must reach a high volume. Few agencies have yet reached the point where they have enlarged the scale of their efforts to a cost-efficient level.

Some cost-cutting measures can also carry with them the tradeoffs cited by Bish. Participants noted that using a group focus to provide technical assistance can sometimes dilute the content and diminish its value for individual recipients. The application of user fees results in a self-selection of the client

group that bars the smallest and poorest producers from benefitting. We need to better understand and delineate these tradeoffs as we develop our programs and present them to our donors.

A final dilemma posed by cost recovery relates to the role of international institutions and their local agencies, and between the local agencies and their client beneficiaries. With regard to this, one group noted the following complications:

- International agencies, such as CARE and CRS, have a well-known history of providing aid at no cost. Changing this modus operandi in small enterprise programs requires that the agency, its counterparts, and beneficiaries cross a "psychological divide" which involves avoiding paternalism, initiating programs without dependency, being willing to say no to providing certain services and to using sanctions when beneficiaries do not pay.
- Whose costs are to be covered must also be carefully studied. Should cost recovery try to support both the local institution and the international agency? If the latter needs to draw considerable overhead from the local project, this can result in a moral dilemma where the "periphery is relied on to feed the center." Donors and PVOs need to be clear about what costs can appropriately be recovered locally.

Finally, participants agreed with Cheryl's position that, between the local agency and clients, dependency can be avoided and cost recovery enhanced if clients are chosen carefully, fees are enforced, and training and technical assistance carefully tailored to a user's needs.

#### **Assistance to Intermediaries**

Apart from the issues inherent in cost recovery vis a vis intermediaries, the PVOs recognize a series of other concerns as well. Technical assistance and training are not only provided to small enterprises. They are also given to local organizations which, in turn, are expected to support micro and small business clients.

Two of the papers, those reporting on IVS and the Council for International Development, explicitly addressed the questions of how PVOs work to install capacity at that level, and the issues that it raises. In addition, several of the other papers mention the role of indigenous organizations in the design and implementation of their programs. There is the clear recognition that the effectiveness of nonfinancial assistance depends on the skill and sustainability of the local organization.

In working with them, PVOs face a number of challenges: developing appropriate training for promoters and managers of small enterprise support institutions; strengthening administrative

systems, financial planning and management, increasing organizational performance and service delivery, increasing the profitability or financial viability of the local institution

Participants noted that one crucial step in developing sustainable programs was selecting a promising local institution with which to work. Accion has developed an "institutional profile" which identifies, among other things, the quality of the institution's business focus and its vision for growth and expansion. Other organizations prefer to help establish a new institution, but basing it very firmly on local direction and support. IIDI, for example, gathers together a comprehensive group that includes businessmen, clergy, and other key leaders which, in turn, nominate a local board of directors responsible for program policy, criteria and fundraising.

Discussants also cited the importance of clear, initial groundrules upon which to establish relationships, and of the international agency itself having capacity to assist in the establishment of sustainable programs. Specifically with regard to financial viability three examples were provided:

- CARE makes technical packages available to local agencies that they can use to generate income for their local efforts,
- OEF/International assists its local agencies identify donors and obtain resources, and
- OICI has developed a resource development manual for its local board and staff members conducting workshops in strategic planning, donor cultivation, concept paper and proposal writing

### Policy Impact

Only one paper, that reporting on ATI, presented a PVO experience in attempting to shape government policy. ATI has seen this work as an important element of its nonfinancial assistance and has pursued a strategy which included the development of a book of case studies, the commissioning of other studies, and the organization of a series of regional seminars on microenterprise development. In addition, staff have examined the connection between micro-level projects and macro policies in their own field program of demonstration projects. It is expected that in the future, macro-policy activities will comprise 5-10% of ATI's program

The effectiveness of these efforts can be partially judged by the extent to which governments have been receptive to the seminars, by the possible role ATI will play in providing further technical assistance to several countries that agree to implement reforms, and the specific changes which have occurred in conjunction with demonstration projects.

There was limited time to explore to what extent ATI's approach is applicable to other FVOs, or in what other ways FVOs have aimed to influence policy. But two points were made. The first identified another approach to policy impact. It was noted that Accion has a public relations department associated with each program whose task is to make the program known to a broader public, and in turn to generate support and political influence.

The second point was a caution regarding the role of expatriate NGOs. One participant suggested that it may not be appropriate for international agencies to be seen as influencing policy. But action could be encouraged through local NGOs or organizations of small business people.

A fuller treatment of the subject of policy impact remains for a future SEEP session on the subject, targetted for early 1989.

### CONCLUSIONS

The first statement that needs to be made is that the working session was not a day for closure. There were too many issues, too much material, and too little time to do more than get a sense of where the participants stand on many of the questions related to nonfinancial assistance. Nevertheless, a number of tentative conclusions emerged including the following:

- (1) There was affirmation that nonfinancial assistance approaches can be valid and effective strategies for small enterprise support. The evidence from the papers and anecdotal evidence offered by participants provide support for the assertion that technical assistance and training can make a difference.

At the same time, there is clear recognition that the case has not yet been made. We need to develop more concrete evidence regarding its effectiveness, drawn from an examination of a larger number of cases.

- (2) In pursuing these strategies, achieving impact has been the prime consideration, and management/cost effectiveness concerns have often taken second place. The emphasis on efficiency, which Bish Sanyal saw in the papers, did not represent an abandonment of the struggle to be effective reaching very poor people in responsive and innovative ways. Rather, as one participant expressed, it demonstrates an evolving concern as our experience has grown, and one on which much work yet needs to be done.
- (3) In pursuing program viability, agencies should adapt some of the management approaches now more associated with credit programs, and devise other more appropriate ones.

Respondents to Cheryl's quick survey of practices reported that most agencies evaluate their field work, calculate cost per service, account for who benefits and how. Nevertheless, fewer responded positively to some of the more critical practices aimed at financial viability. Less than half have a plan for covering recurring costs, charge user fees, or nurture local boards that can raise funds (Please see the chart which follows for greater detail).

- (4) Agencies should pursue both effectiveness and efficiency aims in nonfinancial assistance programs, with a full understanding of the tradeoffs which need to be confronted. Participants acknowledged the importance of Bish's comments in highlighting the role these tradeoffs play in achieving certain outcomes. Their resolution, in specific instances, may not always lead to the most cost-effective model, but one with a higher level of quality and responsiveness to poorer clients.

Finally, participants recommended three steps for future action. These are

- further learning and documentation regarding how nonfinancial assistance projects can achieve both effectiveness and efficiency: the tradeoffs they must meet, the costs and benefits, the stages of development, appropriate matches between clients, context, and services. This study could take the form of a longer-term participatory research effort
- the establishment of a working group on management methods and appropriate approaches to valuing benefits and costs. The working group could identify and document what is currently being done as well as suggest improved procedures, and
- the initiation of a "Resource Register" to gather current PVO materials related to the series of topics touched upon during the meeting. This data gathering could support the work implied in the first two steps and serve as a means for a continuing exchange of information among participants of the October 13 meeting.

These recommendations are currently being considered by the SEEP Steering Committee with a view to determining how best they may be implemented. Whatever form they finally take, it is certain that the issues discussed on October 13 have sparked a responsive chord in the membership and will remain on the agenda for some time to come.

TABLE 2

SCALE OF VARIABLES FOR PROGRAM AND FINANCIAL VIABILITY

<u>% "YES"</u>	
27%	1 Local board of directors that are prepared to raise funds, both in expectations and technique
35%	2 User fees
44%	3 Different tracks of service that vary in intensity and cost Presence of a cheap, extensive way to introduce innovation as well as intensive track(s)
47%	4 A plan for financial viability and how to cover recurring costs over the long term.
52%	5 Periodic analysis of what subsidy is used for and its relation to socio-economic value added
63%	6. Regular reporting of local earnings and percentage of financial self sufficiency.
65%	7 Strategic annual planning that encompasses the major variables of a service delivery system, including scope, cost per unit of benefit and impact targets
68%	8 Program accounting for benefits and impact Calculation of the value added of benefits
71%	9 Analysis of the portfolio of users, and measures to manage risk of starting and developing economic activity. (Especially with risky clientele, activities, or contexts).
74%	10 Post-service monitoring to see that those who receive an NFA service have used it effectively.
76%	11 Analysis and documentation of who benefits, how much and at what costs Strategic planning about this
78%	12. When expatriate management personnel are used, clear agendas and timetables for local institutionalization.
78%	13 A profile of who can use the service productively ID of the skills, traits, assets, experience levels, and other resources to use assistance effectively Definition of ceilings and <u>floors</u> for eligibility
79%	14 Calculation of cost per service
90%	15. Periodic evaluation of technical assistance and the impact of the parent (US) PVO, both programatically and financially, on the field program

(Based on responses of 19 US PVO representatives who are members of the Small Enterprise Education and Promotion Network 10/13/88)

## APPENDICES

- 1 Cheryl Lassen, Non-Credit Assistance to Small Enterprises  
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- 2 Guidelines for Preparation of PVO Papers
- 3 Hugh C Allen, Technical Assistance Training: What Difference  
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- 4 Meg Bowman, Cost Effectiveness measuring the impact of  
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Non-Credit Assistance to Small Enterprises:  
Will It Survive? Can It Flourish?

A Keynote Address

By

Cheryl Lassen

to the

SEEP Network

October 13, 1988

## 1 The Policies that Are Squeezing Many PVOs

Macro-policy change occurs in degrees, much like a huge wave that envelops us rather than a bolt of lightning. Because policy change 'envelopes' rather than 'jolts', the challenge for implementors is to recognize it and respond to it in time. The ways in which PVOs develop methodologies, evolve management systems, change cost structures and build resource bases require time (12-30 months) to set in motion. If something grows to a large swell of need, and donor expectation/policy, without a sufficient response on the part of PVOs, we'll find it constricting and squeezing away PVO vitality to create more and better programs. This is what is happening in the small enterprise field where more affordable approaches that show greater potential to deliver some benefits to a wider number of producers and to rotate resources or generate resources locally in doing so are replacing models that are less cost and service competitive.

For example, a policy wave that has been building during the Reagan Administration years is economic rationalism. This has translated into a reduction of development aid flows, increased requirements to match USG grants with private funds, and increased expectations for cost efficiency. Today in 1988, US PVOs are faced with a triple challenge of 1) reaching the poorest (which is the social mandate of most PVOs), 2) providing services that are effective in developing economic activity among high risk beneficiaries, and 3) decreasing dependence on foreign aid. It no longer suffices to accomplish one or two of these challenges. We have to show progress in all three, and to prove it!

## 2. Can Non-Credit Assistance Survive?

The answer is yes, so long as it is cost and service competitive. There is widespread acknowledgement that credit is necessary but not sufficient for the development of small enterprises. However, a paucity of guidelines and methodology exists about how non-financial assistance can be provided in ways that are cost and service competitive. I believe this is possible, but the key to doing it is to concentrate in both the design and implementation phases of a program on a model for viability that is, to avoid delivering services without thinking early on of considerations about scope, cost, level and purpose of subsidy, local revenues, and efficiency. That is, I believe many programs of non-financial assistance to small producers (production training, management consulting, appropriate technology, or the very necessary "intergrated" programs that combine SED with such areas as family planning, housing, agriculture, etc.) have a lot of potential to increase their productivity and economic rationalism through better design, planning and management systems. We tend to concentrate so much on the labor intensive details of defining what services are to be delivered, and/or the day-to-day administration of them that we

loose track of the big picture. Not only can we not distinguish well the forest from the trees, but we find ourselves very short of the tools and practices that would help us diagnose this forest, and monitor and shape it periodically. This is an important function of higher level management, yet one that is played weakly in many PVOs.

There is no evidence that training services, or technology transfer, or small business extension is inherently more expensive than establishing a credit system, although it is true that beneficiaries may be more accustomed to the idea of paying for credit. But if there is anything I have learned from 10 or so years of experience with integrated projects that have major NFA components, it is the need to pare them down to their simplest, most necessary elements, to have monitoring and program accounting systems, and to do the periodic analysis and strategic planning that will bring day-to-day micro decision-making in line with the big objectives and overall goal of viability.

### 3. The "Asleep at the Controls" Syndrome (Unbalanced, Unmanaged Program Development)

A person driving a car has to perform multiple functions simultaneously: accelerating, steering, braking, shifting, signalling, and being alert to surroundings. It is necessary, but not sufficient to perform most of these functions but to leave one or two out.

So too with small enterprise projects. a set of variables must be taken into account. We cannot concentrate on only some of them like defining program services and overlook others like planning and management tools and systems for what we want a program to be several years down the road. Many PVOs do not have a highly defined SED approach. With large gaps in implementation knowledge it is not unusual to see PVOs so busy concentrating on these content gaps that they give little attention to program management systems. This results in oft-criticized problems: too little scope, too high a cost, unfocused services, and/or too much dependency on foreign aid. Sometimes agencies don't recognize the extent to which they are "asleep at the controls". Most forms of non-financial SED assistance feature some sort of training, which raises the need to monitor benefits and costs and to make sure that the piling on of services doesn't far exceed the economic benefit accrued from those services. Many PVOs have multiple types of benefits they are pursuing--not just enterprise development, but socio-economic and social development, and sometimes social welfare. There are trade-offs among these priorities and they can sometimes be antagonistic as much as synergistic. This is another reason to monitor, so that we can spot when we need to change assumptions and/or methods.

Another aspect of non-financial assistance that SEEP members have recognized is that it is much more difficult to account for benefits that cannot be easily counted, weighed, or expressed in money or number terms. Skill building, group, community, or institutional

development, subsistence productive activity that are more complex to indicate. Indirect benefit processes--the training of trainers, policy improvements, strengthening of local small enterprise organizations--are also more complex to measure. But if PVOs do not have methods and systems to account for benefits, no one else will do it for them. When the time for accountability comes, if a PVO cannot present some measurable evidence of outputs and benefits, then it is presumed to have not been doing much. For a grantee, there is a need for program accounting as well as financial accounting. Because nobody holds up the next grant disbursement over weak program accounting, PVOs are often lax in putting such systems into place.

#### 4. A Need for Vision as Well as Management Systems

Management systems are not ends, but means enabling us to pursue longer term visions of development. If there is a strong vision of where it is needed and wanted to be several years from now, it is much easier to be proactive, invest in systems, and make tough choices. There is much lip service given to concepts such as viability and sustainability. If we are serious in having these as goals, we know services have to be affordable in cost, that there must be diversified revenue sources--including user fees, and that decision-making has to be decentralized from expats to local board and staff, and from them to beneficiaries. What we are learning from the PACT research about extending benefits is that the PVOs who succeeded in reaching larger numbers and in providing continued service have been fueled by their vision rather than tugged by resource availability. I am sure that ACCION made many hard choices in defining a SED program model that will be self-financing in three years time. But they made them from a commitment to see that low income producers had a continuing mechanism to provide them credit. FINCA, which is a model for group and community development as well as community based savings and loan operations, has also made interesting, tough choices to allow the organizing of community banks to be controlled by the base groups themselves, and to restrict FINCA's own presence to a minimum.

Vision is not the privilege of a few. Vision--our concept of a better future--can be accessed by all who wish to do so by setting the goal or taking a stand about what is to be present in future time (3-5 years) and then designing an approach and doing the strategic planning and budgeting to arrive at that. Creating vision and enabling people to see how to proceed into the future is an important function of higher level PVO management. Yet how many of us who should be doing PVO steering and leadership allocate most of our time in the daily workflow passing over our desks rather than orchestrating and creating the future?

## 5. Possibilities for Increased Productivity of Non-Financial Assistance

There is a saying among entrepreneurial types that "problems are really opportunities in disguise " Perhaps that is true if we can sense from a problem situation what is missing, because that in itself is an important form of knowledge which reveals to us the next rung on the ladder up to which we have to climb In that sense, I would like to share with you some weaknesses I have observed that diminish agencies' capabilities to deliver non-financial SED assistance in a way that is cost and service competitive.

- 1 Lack of an underlying viability paradigm Too few agencies "aim" with their SED designs at what a program needs to be when it is 5-7 years old Yet without a comprehensive model, it's not surprising that a program develops like 'the house that Jack built' with a feature added here or there but lacking the deep integration, complementarity, synergy, and economies

To the extent that implementors are able to think early-on about becoming a sustainable program, they will be concerned early on about

- a the structure of recurring costs of a local program
- b building a local governing structure that is willing and able to be responsible for the financial needs of the institution in the future
- c user fees and other local earnings
- d scope and intensity of services (if you can't charge much per service, you've got to have a big enough volume to break even
- e. cost control

- 2 Planning and Design Weaknesses No quantitative projections of client load, cost per unit of benefit, cost recovery, and results (how much benefit for how much cost) Without such projections or performance standards there is no guideline to know if one is on or off target. It's not enough to have benchmark indicators of numbers of services or clients. How would you expect to see improvements to project effectiveness and efficiency over time? The more parameters one can determine about the future, the more likely one is to reach them.

3. Poor Management Information Systems Most PVOs have rudimentary indicators of outputs (services delivered, client load) but are lacking in impact, cost, and revenue indicators. No wonder they find it difficult to set goals and targets for increased program productivity and keep them No wonder they do not have evidence for their improved performance over time

4 Too Little Differentiation about Different Intensities or "Tracks" of Service Delivery or Training/Extension for Different Clienteles Some forms of service are very expensive PVOs have to ask themselves whether every beneficiary needs the most intensive, longest, most expensive form of something--and whether they are really making effective use of it. Most every kind of service can usually be given in a less intensive, less expensive form PVOs need to be serious about operating more than one track of service, and being more selective about who gets the most intensive assistance in terms of who can pay for it, and who can use it most productively to develop economic activity This is in addition to the fundamental question of who needs it most

5 Reluctance and/or Lack of Know-How to Introduce User Fee Systems There is much to learn from credit based projects about imposing user fees and being proficient in collection The principle of credit is simple "selection/collection"--ie , you select those who are willing and able to pay and you make sure you collect from them

(I don't want to make this sound too simplistic, but the point is that there is technique to imposing user fees If agencies don't have experience, they should get some help from those who do know how.)

6 Unclarity about the Kinds of Benefits a PVO Program Is Aiming for, and Mismatch of Methods/Clienteles to Achieve these Goals What kinds of benefits is a PVO/project really aiming for: social welfare, social/human development, socio-economic development, enterprise development, and/or economic development? A PVO could aim for several of these, but it has to understand the trade-offs among them, and also that the methods and clienteles of the more economic/business type goals are not the same as the social welfare and social development goals

If a clientele has little or no assets, skills or business experience, is it appropriate to mount a business development project with them? Perhaps they need a welfare or at best a socio-economic development project If so, that is what it should be called, and not an "enterprise or business development" project

It is not unusual for projects to be delivering services to a socio-economic spectrum of beneficiaries--i e., for the clientele to be heterogenous in terms of assets, experience, motivations, socio-economic standing, etc. PVOs can serve some of the poorest and riskiest, so long as they serve some others too for whom there is not such a high risk of

failure. A way to do this is to adopt a "portfolio mentality"---ie., one might have 20% who are assetless, and 30-50% who have potential to grow in the size, complexity and formality of their economic activities.

- 7 Costing PVOs need to cost their products so many staff delivering so many goods/services, with such-&-such an intensity, at a certain price and with a certain level of revenue and subsidy. Even if the first attempts to figure this equation out are frustrating, good program management requires one to take a stab at doing it. Once you are aware of these parameters and can factor them all into the same equation, you can become strategic about planning the cost of your service.
  
- 8 A Model for Financial Viability A high standard we PVOs can set for ourselves is to not start things up without a plan about how recurring costs will be paid in the long run. Making such a plan will have major impact on decisions about costs and revenues. It will have major impact on building local management and local board capabilities and the use of expatriates. It will impact client selection and the choice of services provided. And it will impact how much and how long US PVOs can make overhead charges for their US operations to grants for field projects. Local agencies need not have as a goal 100% self-sustainability; but if they will need to raise funds, what are the targets, who is going to do it, and how are they being prepared?
  
- 9 Results Orientation and Methods for Selecting and Reinforcing What Works Just like high-yielding seed varieties, PVOs must select and reinforce what gives the best results. Among beneficiaries, what are patterns of those with high, medium and low SED success? What are commonalities among the 10 worst cases or the ten best cases? Sometimes we can also identify faster what will work by making small but calculated tests of changed policies or formats for service delivery. Make data and analyze it. If you have questions about your methods and approach, set up small scale experiments to test them.
  
- 10 Projects of Non-Financial Business Assistance Can Benefit by Adopting Some of the Principles of Credit Projects
  - a Selectivity--need to target services to those who can use them effectively
  - b Good methods to assess the risk of the character and the project undertaken
  - c Willingness to charge fees, and to collect.
  - d. Clear set of indicators of project performance
  - e. Consistent set of incentives and disincentives to shape desired behavior. Also a willingness to apply sanctions to the most dysfunctional behavior

- f Implicit understanding that in order to succeed you have to do the service in large volume, keep it pared down so as to be affordable, and pass on the costs

## 6. Determining Performance Standards for Different "Stages" of Program Development

David Korten suggested a model of how programs evolve from effectiveness to efficiency to replication or expansion. Korten's conceptualization reflects a logical process of maturation. As a program begins, its first efforts are to find what works to promote small enterprise development among the beneficiaries in the context. As proficiency is attained and methods and clientele defined, ways are found to streamline the delivery of services and grow more efficient. However, there is large variation among PVOs in the rate at which they move through these stages, and the extent to which they are able to achieve replication and expansion.

How long should it take for a program to move from a pilot phase to maturity? Some agencies such as ACCION are based on 3 years. My own experience has been to allow 5-7 years for the development of a package of effective, efficient, and affordable services, and a local organization that can deliver them on an on-going basis. That is not to say that all subsidy should be removed from a program at the end of 5-7 years. But probability is low that principal donors who have supported a program for this long will continue to do so at the same levels after two grant cycles. Ergo, PVOs have three options. They can approach something with a clear project mentality that completes its objectives and goes out of operation after a given period of time. Or, they can arrange to line up alternative major donor support (if continued high dependence on aid is justifiable). Or, they can accept a 5-7 year timeframe for developing a mature package of services and a service delivery mechanism.

Once PVOs recognize and choose one of these options, they can set for themselves timetables and benchmarks for moving through these effectiveness and efficiency stages.

## 7. Needed Information for Enhanced PVO and Program Performance

An environmental constraint to increased PVO productivity and cost and service competitiveness is that there is little comparative information available or well defined standards about costs-per-benefit, economic returns (cost/benefit analysis), etc. Perhaps something that the SEEP group could really do for its members is to gather and exchange this kind of information.

Another area where there is considerable common need for assistance among PVOs is in the definition of monitoring, program accounting and management information systems.

A third area of analysis is how PVOs have adjusted their program and organizational development models to pursue viability and sustainability. What specifically did they change, add or do differently?

CHECKLIST OF VARIABLES FOR PROGRAM AND ECONOMIC VIABILITY

- 1 Calculation of the cost per service
- 2 User fees
- 3 Regular reporting of local earnings and percentage of financial self sufficiency
- 4 Strategic annual planning that encompasses the major variables of a service delivery system, including scope, cost per unit of benefit and impact targets
- 5 Periodic analysis of what subsidy is used for and its relation to socio-economic value added
- 6 A plan for financial viability and how to cover recurring costs over the long term
- 7 Post-service monitoring to see that those who receive an NFA service have used it effectively.
8. Program accounting for benefits and impact Calculation of the value added of benefits
- 9 Local board of directors that raise funds and are prepared to raise funds, both in expectation and technique.
- 10 When expatriate management personnel are used, clear agendas and timetables for local institutionalization.
- 11 Different tracks of service that vary in intensity and cost Presence of a cheap, extensive way to introduce innovation as well as intensive track(s).
- 12 A profile of who can use the service productively ID of the skills, traits, assets, experience levels, and other resources to use assistance effectively. Definition of ceilings and floors for eligibility.
13. Analysis of the portfolio of users, and measures to manage risk of starting and developing economic activity (Especially with risky clientele, activities, or contexts)
- 14 Analysis and documentation of who benefits, how much and at what costs. Strategic planning about this
- 15 Periodic evaluation of technical assistance and the impact of the parent (US) PVO, both programatically and financially, on the field program.

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Technical Assistance and Training: What Difference Does It Make:  
How Can It Be Done Effectively and Affordably?

Guidelines for Discussion Papers

1. Please keep your papers 3-5 pages in length.
2. If you believe that one or more aspects of your agency's assistance is significant in terms of
  - cost effectiveness
  - sustainability/viability
  - scale
  - policy impact,  
or other measure of impact,

please give a succinct introduction to this type of assistance and the context in which it is functioning, present evidence of performance, and offer one or two wisdoms to others who may be interested in doing something similar.

For those with refined methods, quantitative evidence of performance and affordability is requested. How do you document/prove the difference non-financial interventions make?

- 3 It is absolutely okay to attend this workshop with questions rather than answers, and to use the opportunity of writing a discussion paper to focus and organize your inquiry.
  - \* You may wish to inquire about what kind of non-financial assistance (or combination of financial non-financial assistance) is most effective with a certain size or type of producer, or in a certain type of context. Describe what steps you have taken to tailor your assistance appropriately, and what issues remain.
  - \* You may wish to identify as an issue the affordability of technical assistance and training, and discuss how costs are monitored in your programs, to what extent you have developed a strategy for financial viability (user charges, cost control, etc); what questions remain.
  - \* If you provide technical assistance to local agencies, you may wish to define management, measurement, and/or program accounting challenges or issues. How do you monitor the extent to which nonfinancial assistance is appropriate and makes an impact? Unless your assistance earns enough revenue locally to pay for itself, you must demonstrate to donors that your interventions are cost and service competitive. How do you do this?

- \* Your technical assistance and training may work well for 60, or in a few villages. You may wish to explore the challenges of scaling up to a significant number of users (thousands), or replicating this approach to local institutions or agencies in other countries with whom you are affiliated
- \* You may have a non-financial assistance approach to developing small scale economic activities that is only a half or a quarter as effective or as "developed" as you want and need it to be. How do you embark on a program to focus, test, and refine this methodology into something that works exponentially better?

4. Each discussion paper should include the following elements

- a statement of the issue as your agency sees it, and the context (project, small enterprise strategy in which you have confronted it)
- the steps you've taken to address the issue,
- the results achieved
- your evaluation of them, and
- the learning you draw from the experience, and/or the questions that remain.

**Technical Assistance Training**

**What Difference Does it Make?  
How Can it be Done Effectively and Affordably?**

**CARE's Experience In Promoting Stove Manufacture in the Sudan**

**Hugh C. Allen**

**CARE Regional Technical Advisor for Small Enterprise East Africa**

## Technical Assistance Training

### What Difference Does it Make? How Can it be Done Effectively and Affordably?

#### CARE's Experience In Promoting Stove Manufacture in the Sudan

CARE's stove program in the Sudan has taken its particular shape over two and a half years almost entirely as a response to the twin issues of affordability and effectiveness in respect to the supply of technical assistance.

The original focus of this program was on very small-scale informal sector stove manufacturers, located mainly in rural townships and the larger villages of North Kordofan. The idea was to promote the manufacture of a highly efficient ceramic-lined charcoal-burning stove, developed in Kenya, among dozens of informal-sector stove artisans. This was to be achieved through creating market-based linkages between local pottery producers and the stove metalworkers

After 3 years, the project works mainly in Khartoum - a city of three million people - and deals with one well-established pottery manufacturer, who deals independently with several metalworkers who supply him with metal casings. He assembles the complete stove, and is entirely responsible for marketing, which is mainly carried out through a chain of retailers in the city. Linkages are only now being created with other towns.

These linkages initially consist of supplying completed stoves to retail stores in the towns. Once the stove is well-established in the market, metalworkers will be supplied with ceramic liners from Khartoum. During this time local sources of clays will be examined, and potential manufacturers of the liners identified.

Thus, after three more years stoves should be made entirely in the larger Regional towns, produced through the establishment of mutually supportive linkages between metalworkers, retailers and ceramics producers.

It is clear that CARE has adopted a strategy entirely the reverse of its original intent, focusing initially on well-established businessmen in large urban centres.

The reasons for this shift can be summarized as follows

- \* The macro-purpose of the project is to save trees, reducing pressure on a seriously damaged environment. The means is to sell large numbers of stoves to people who cook with charcoal. Production efficiency is deemed therefore more important than issues of social empowerment and economic equity at the point of manufacture.

- \* Quality-control is the most important issue in creating consumer acceptance of a new, quite expensive, product. This is more readily guaranteed with an experienced, medium-scale manufacturer than with very small scale rural potters, whose output is seasonal, and of a widely varying technical character.
- \* Very small-scale producers are highly averse to risk larger producers are less so. At the same time there are disproportionately different profit opportunities at these two levels, which has important incentive - and therefore sustainability - implications.
- \* The type, quality and intensity of the technical assistance needed is much the same for medium-scale manufacturers as it is for each small-scale producer, with a much better assurance of technical transfer taking place. In general the smaller the scale of the unit the greater the amount of TA required, and the less the assurance that systematic production and quality-control methods will become quickly established.
- \* Experience with small producers who went through formal training courses showed that one year later less than 10% were still making the stove, and only in very small numbers. (3 - 5 per month) This compares to 1,000 units per month currently being sold in Khartoum, representing 40% capacity utilization.
- \* Medium-scale producers making stoves in large numbers rapidly give the product a credibility in the mind of consumers. This in turn convinces smaller potential producers more effectively than formal exhortation at training sessions, and establishes a standard to which competitors must conform.

The shift in the focus and process of technical assistance delivery has been demanded by a recognition that the primary purpose of the program is macro-economic and environmental, most effectively served by a system of mass production. A consideration of equal importance however has been the purpose of sustainability, defined in this case as the continued mass production for profit of a large number of high-quality stoves.

Questions of scale have been determined by an assessment of market size, and potential market share. This in turn has shown that within the context of program costs, quasi-mass production at the present level serves the purpose of achieving maximum impact at an affordable price.

Impact is defined here in terms of consumer acceptance, consumer savings, and reduced environmental pressure.

The distinguishing feature of this project has been the willingness of project management to squarely face up to the benefit-cost issue, and to make some realistic decisions about program focus and scale, at the cost of considerable debate with donors.

## LESSONS LEARNED

The Sudan stoves project depends entirely on effective, flexible and dynamic technical assistance, since it is concerned both with introducing a new product, and a system of production that links the formal and informal manufacturing sectors. In other words, without hard T.A. available both locally and occasionally from international sources there would be no project.

The basic truth that determines whether or not T.A. is cost-effective lies in making a realistic assessment of the economic and social value of the product, be it a stove, a crop, or a social process such as the establishment of women's groups. The mode, style, and efficiency with which technical assistance is delivered depends on this basic fact when trying to assess its effectiveness.

In the case of the Sudan stoves project the technical skills required of a T.A. team, and the amount of time spent on transferring those skills has remained fairly constant, when comparing the original approach to the new. Clays have been tested, production methods taught, marketing and public information campaigns financed - all in a style that has remained unchanged except for the introduction of one simple machine, and a more formal approach to credit and business consultancy. What HAS changed is the perception on the part of project management that the primary project goal was to save trees and keep more money in stove-users pockets, with issues of social equity as they apply to the group of producers being less important. In the light of this understanding, benefit-cost issues assume central importance.

The project shifted its focus not only because quasi-mass production can lead to the establishment of high technical standards and rapid penetration of the market, nor merely because technical assistance is comparatively cost-effective at this scale of output. Equally, the basic objective of putting the manufacturing technology and market in the hands of very small-scale producers has not been abandoned.

What has been accepted is that for an effort of this sort, involving the manufacture of a new product, the best form of technical assistance lies in creating a belief in the minds of potential producers that they can make money with minimum risk if they get involved in production. Exhortation, and photogenic workshops conducted under trees, are extremely ineffective ways of convincing people at the lower end of the economic scale that they can make money from making stoves. What IS effective is the appearance of

a new product in a market which has been properly prepared for its introduction. So long as the product is made to standards which, while high, are clearly achievable using traditional and informal systems of manufacture, the demonstration effect of customers buying stoves from the local store is a powerful persuader. Once this foundation is laid, the incremental supply of technical assistance which is matched to a growing level of technical and financial capability is likely to be significantly more effective.

It is useful in this respect to look beyond the formal definitions of technical assistance to recognise that often the most effective channels of technical transfer are unlocked and managed by practitioners. CARE's efforts in the Sudan are based on the proposition that cost-effective technical assistance to the established entrepreneur, while serving program purposes at an affordable price, are the visible and preliminary steps in a process in which the burden of technical exchange is carried by the private sector for the simple purpose of mutual commercial benefit. The role of CARE becomes increasingly that of a catalyst, making the advantage of such relationships self-evident, and enables attention to be given to minimizing risk in the general areas of infrastructure and marketing, at smaller and smaller scales.

What is described here is not a statement of an overall policy towards technical assistance either for CARE or for its small enterprise sector. It is a highly specific approach to the cost-effective application of technical assistance in order to get a particular product made, and used in a particular market. The reasons for doing this grow out of larger goals that have to do with preserving a fragile environment, and creating significant savings for a very large number of poor consumers who are forced to use charcoal.

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**NON-FINANCIAL ASSISTANCE TO THE**  
**SMALL ENTERPRISE SECTOR: THE IVS/CARIBBEAN PROGRAM**

**Jim Cawley**

**September 30, 1988**

IVS programs operate on the premise that the development of the micro-enterprise sector needs management training and technical assistance. Individual entrepreneurs and entrepreneurial groups require local support systems in order to gain and maintain access to credit, to obtain and improve business management, marketing and production skills, and to have an impact on national policies which inhibit or promote growth within the sector. Local secondary organizations, as opposed to expatriate organizations, are seen by IVS as the appropriate providers of this support, so that our approach is to strengthen these organizations' capacities: their technical skills, their systems and their networks.

IVS has been learning to become increasingly effective in offering this kind of assistance to local organizations. Currently, we provide assistance at two levels: (a) the field director and (b) volunteer technician.

(a) The IVS field director works closely and systematically with local organization officials and staff to plan projects in ways that transfer skills to that local staff. Together they focus on assessment and problem identification (critical thinking

and analysis skills), project design (planning skills), recruitment of and on-going support for the volunteer (personnel management skills), and project monitoring and evaluation (feedback and learning skills).

(b) The volunteer technician works with the organization's management and staff to transfer skills and install specific systems to solve the problems that have been identified jointly by the field director and the local organization.

IVS' effectiveness in helping local organizations to strengthen their own capacities is based on this two-tiered approach which is consciously management intensive. Based on our experience over the years, we have concluded that without adequate preliminary work with the local organization, without careful joint efforts to focus the work plan and recruit appropriate personnel, and without ongoing support by the field staff, the delivery of TA often misfires, wasting scarce resources. Some typical problems have been: (1) inaccurate problem-identification, which led to misdirected efforts; (2) inappropriate planning for and use of resources, which led to misused personnel and wasted money; and (3) lack of needed project inputs (e.g., counterpart trainees, timely funding), which led to half-completed efforts and loss of confidence in local project holders. The more management-intensive approach has been able to reduce these difficulties and make IVS's

approach with local organizations more effective.

Now IVS is trying to become more efficient by (1) working with more secondary organizations using the same number of field staff; (2) focusing on more specific critical problems, thus providing more targetted TA; and (3) shortening volunteer time with each local organization, which allows assisted groups to work on their own, with follow-up assistance available as needed and requested. This approach frees up resources to (4) make volunteers available for other short-term assignments, and (5) field teams of volunteer with targetted and complementary skills so as to better serve the local organizations.

Our efforts to become increasingly effective and efficient were incorporated in the design of a new IVS program initiative in the Eastern Caribbean, begun in 1984, which sought to assist a greater number of organizations per IVS volunteer and to be regional in scope. The program design that was adopted had as its centerpiece the fielding of a mobile team of multidisciplinary West Indian volunteers, called "advisors", to work with a number of local organizations. Their purpose was to strengthen the capacity of those organizations to address the needs of local micro-entrepreneurs, small farmers and unemployed youth. Each advisor represented a distinct field of expertise: agricultural marketing and post-harvest technology, youth skills training, small enterprise development, small industry, and

financial management and planning. These particular skill areas were determined jointly through structured needs-assessments done with a wide variety of Caribbean organizations. Each advisor was assigned to work on a separate island under the auspices of a local host organization. Each one was available to other local and regional groups on a time-sharing basis. Local counterpart trainees and in-kind contributions to program costs were provided by the local organizations. The team was coordinated centrally by the IVS/Caribbean Field Director, based in Antigua. Each advisor began by working almost exclusively with the initial local group, except for occasional short-term assignments within the base island. Once they had established their local footing securely, they were made available for short-term assignments throughout the Eastern Caribbean, either singly or in conjunction with one or more members of the mobile team. For every secondary assignment, the requesting organization went through the assessment-planning process outlined above with the IVS field director and/or the advisers.

The program was management-intensive in a number of ways:

1. In the design stages and throughout the life of the program, the IVS field director worked very closely with the local organizations. The skill areas represented by the team, the team selection, the methodology of TA delivery and later program

changes all took shape through IVS's interaction with local organizations.

2. A regional recruitment effort for the "right" advisor team proved very successful, but required an exhaustive screening and interview process by the field office and local officials

3. The field director worked with the local organizations to identify problems and TA needs. Together, appropriate work plans for the advisors were developed and modifications were made as necessary. Assignments were monitored closely by the field director and local organization officials, and discussed with the team in quarterly meetings.

4. The field director and the advisors collaborated in linking local organizations with similar interests to one another and provided information and leads to potential funding sources.

5. The field director also managed the movement of the advisors among six islands as the shorter-term assignments proliferated in the third year of the program, a considerable logistical feat.

After four years in operation, internal and outside evaluators concluded that the IVS/Caribbean team's interventions had

contributed significantly to the development of over 150 local organizations and small businesses in the region. They based their conclusions on the analysis of selected indicators of organizational change:

- efficiency of organizational structure and systems
- organizational performance and delivery of services
- staff capabilities and training
- production and form of work
- organization's profitability and viability
- organizational image and self-valuation
- availability of new information
- level of problem-solving capabilities.

The evaluators judged the TA appropriate and effective in that it strengthened key capacities in the assisted local organizations, particularly in the areas of administrative systems, financial planning and management, and staff training. Data collected showed significant change in the assisted organizations' ability to perform key tasks that enabled them to serve their clients more effectively and/or efficiently.

Although the success of IVS/Caribbean has been encouraging, IVS is addressing some key issues that it raised:

1. The program was expensive, even taking into account that each advisor reached a far greater number of organizations than

is usual withing an IVS program. The mobility of the field director and the advisor team within the region did not come cheaply and the selection of more established West Indian professionals for the team meant supporting larger families with the attendant costs (housing, education, health)

The program experimented with ways of lowering costs, and some proved successful, both from a cost-saving and programmatic perspective. By the third year of operation, many of the assisted organizations were paying for portions of advisor costs and some assignments were conducted on a fees-for-service basis. Still, the initial investment was high.

2. The mobile advisor team model needs some modification to develop a quicker needs assessment process in the field, and ensure that timely responses to identified assistance needs are implemented.

3. To date, we lack hard impact data on the individual entrepreneur, the eventual beneficiary of this assistance.

While we could identify some organizational changes with the assistance or training of an IVS advisor, it was much more difficult to trace causality from that training to improvement in the small business client's enterprise or income.

COST EFFECTIVENESS  
MEASURING THE IMPACT OF TRAINING AND TECHNICAL ASSISTANCE

Meg Bowman, TECHNOSERVE, Inc

Few projects that TECHNOSERVE has ever encountered have required only financial assistance. Almost all have varying requirements for bookkeeping, accounting, management training, technical assistance, marketing, group motivation skills, etc. This non-financial assistance is TECHNOSERVE's specialty. Our challenge is therefore to find ways to use our non-financial resources effectively and to evaluate our progress to insure that learning is sustained, that businesses are viable over time, and that we are doing what we can to change the business environment in which small enterprises operate. TECHNOSERVE's solution has been to develop a cost-effectiveness methodology which evaluates the extent to which we are achieving our organization's development goals.

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Too often, development agencies opt to transfer resources to project participants rather than transfer capabilities. It is easier to provide credit or commodities than to improve the way people run their businesses. However, resource transfer is limited in its capacity to produce real changes over time. The inability of recipients to manage the resources transferred to them is the reason for lack of success in many programs. Enterprise development organizations must place more emphasis on the transfer of know-how.

The current emphasis on resource transfer is not always determined by the needs of project participants. Financial and logistical limitations of organizations may dissuade them from providing non-financial assistance. Organizations may also focus on financial assistance because they feel pressured to show results from their program in the short-term. Financial transfers are easier to measure than the results of training or technical assistance, but this does not mean that it is the most productive or useful investment in enterprise assistance.

These problems are deeply rooted in the ways that donors and implementing institutions have come to evaluate enterprise projects. Stated goals of enterprise projects include increasing incomes and production, generating employment, integrating more people into the formal economy, redistributing income to the poor, increasing access of goods to isolated areas, and reducing the cost of goods to the poor, et al. Donors want to see entire economies being transformed. But few of these changes are possible if businesses do not survive in the medium term. Success should not be measured by how much credit was provided or by how many entrepreneurs participated in a program. Rather, success should be measured by the impact assistance had on the enterprise or the enterprise environment. Long-term impact and change should be the yardstick against which successful projects are measured.

The Need for a Cost-Effectiveness Methodology

TECHNOSERVE has grappled with these issues for many years. In each project, the focus is to transfer administrative, technical, and managerial skills to enterprise owners. (Financial assistance also plays an important role, but is not our primary focus.) Although TECHNOSERVE sometimes provides short-term advisory services, its typical intervention takes from three to five years. As

one can imagine, in-depth assistance provided by experienced advisors over the long-term is costly relative to short-term interventions. Yet we have always asked, 'is the expense of our assistance really worthwhile in the long run?' Inherently we wanted to answer yes. We believed that long term intervention was worth the expense, but until now we have had no way in which to prove to ourselves, and to others, that our instincts were correct. We needed a more concrete method of measuring the value of our non-financial assistance.

Because our focus is enterprise development, the core of an analytic tool needs to include a measure of enterprise profits, an accepted indicator of business success. However, since TECHNOSERVE's projects yield benefits above and beyond those that are accounted for in business financial statements, we had to develop an analytic tool which encompassed these other very important goals into our project evaluation process.

The resulting system is a combination of 1) a model which follows many standardized practices of cost/benefit and net present value analysis and 2) a system of weighted values that reflects other benefits which cannot easily be translated into dollar amounts.

**STEP 1: THE COST-EFFECTIVENESS MODEL**

The idea behind Cost-Effectiveness is that direct project benefits (increased incomes, increased enterprise profits, wages to enterprise employees, etc.) are calculated and compared to the amount it takes TECHNOSERVE to deliver services to that project. The information must be compiled over time because we incur costs at the beginning of the intervention, but benefits are usually derived sometime further down the road, usually increasing over time as project participants become more self-sufficient. Therefore, a total picture of our program's cost-effectiveness requires that information be compiled over time in the form of a 'spreadsheet'.

Data for each project are fed into a Cost-Effectiveness model appropriate to that project type. To keep the financial measurement consistent and 'in check,' only direct benefits to direct project participants are included. By restricting financial benefits to those that are direct and measurable, the method is conservative. This has disadvantages (it produces lower numbers), but we feel that this provides us with more useful management information. Also, by keeping conservative calculations we can confirm whether TECHNOSERVE's non-financial methodology can stack up against claims of other enterprise assistance models.

The model focuses on the following benefits and costs:

Benefits <u>With</u> TECHNOSERVE Assistance		Benefits <u>Without</u> Technoserve Assistance	
Net	=	A Farmer's income	A Farmer's previous income
Benefits	+ B Enterprise income	less	+ B Previous enterprise income
	+ C Salaries and wages paid by enterprise		+ C Previous salaries and wages paid by enterprise
Costs	=	A TECHNOSERVE project and direct administrative costs	
	- B Fees paid by enterprise for TECHNOSERVE services		

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These indicators are broken down into components and recorded for each year of project assistance and projected ten years further than the last year of assistance (See sample spreadsheet, Appendix 1 )

A Cost-Effectiveness ratio is then calculated by dividing the present value of benefits by the present value of associated costs \* For example, a ratio of 1 tells us that the financial benefits derived by project participants was equal to the financial costs incurred by TECHNOSERVE. By comparing ratios from different projects, we can learn more about our work with different types of projects in different countries. It helps us to evaluate which sorts of enterprises we are most effective at assisting and whether we are delivering enough direct financial benefits to the project participants. This information is important feed-back to our field and program managers

This type of evaluation is familiar to development banks and to private sector companies. Unfortunately, existing methods focus strictly on measurable financial benefits and costs. To incorporate a measure of other non-financial benefits delivered by its projects, TECHNOSERVE developed a second component of its formula which incorporates other, perhaps intangible, but critical, benefits from our services

## STEP 2 NON-QUANTIFIABLE BENEFITS RATING SHEET

Non-quantifiable benefits fall into three categories: social, economic, and policy. Such benefits include the degree to which TNS assistance improved managerial and technical skills, increased control over quality of life, increased participation for marginalized groups, sustained productivity, increased employment, increased economic linkages to the community, improved the policy environment for enterprises, etc. (See Non-Quantifiable Benefits Rating Sheet, Appendix 2.) We determine priority weights reflecting the relative importance of each category according to the strategic goals of the program. TECHNOSERVE staff who are familiar with the project grade each benefit to indicate its relative success or failure. The graded values assigned are then multiplied by the priority weights to get a weighted value. The Project Advisor, the Country Program Director, and the Program Officer, each rate the project and the resulting values are averaged.

These weighted values, although calculated from subjective judgements about project success, indicate the degree to which that project has increased benefits to beneficiaries. The rating is scaled so results higher than one reflect a positive non-financial benefit to the project. The accompanying comments for each rating explain why the project came out ahead (rating > 1) or behind (rating < 1).

Because the method and measurement of direct financial benefits (Step 1) is objective, we choose to keep this component separate from the more subjective

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(\* Benefits, which are calculated in local currency, are converted to current values of local currency using Consumer Price Indices for each country. Benefits are then discounted by ten percent to account for the time value of money, to obtain a current local value. This figure is then converted to dollars using the current exchange rate. Costs are already in dollars because they are incurred TECHNOSERVE expenditures. These cash flows are discounted by the yearly Treasury Bill interest rate.)

non-quantifiable components. But presented together, they provide a meaningful picture of how our projects stack up to our stated goals.

## RESULTS OF THE EVALUATION

TECHNOSERVE analyzed a sample of its projects using this Cost-Effectiveness rating tool to see if the project benefits justified TECHNOSERVE's costs. Considering only direct financial benefits, 65% of the projects analyzed were viable, profitable businesses, delivering financial benefits beyond what TECHNOSERVE had invested in assistance (financial rating > 1). Generally ratios ranged from 1.75 to 29.25. This was certainly an indication that our technical assistance and training had been cost-effective. (In one case, considered one of Technoserve's worst interventions, the ratio was .02). Additionally, we found that as a result of our assistance valuable skills were transferred, greater participation in enterprises was achieved, isolated communities gained greater access to extension services, electricity was brought to a new area, the government increased the prices at which they purchased a commodity, transportation businesses sprung up around a successful enterprise, and business models were adopted by others in the community.

Although the financial impact of these benefits are hard to quantify, these gains were sometimes even more important to the beneficiaries than the business profits. But at the heart of these other benefits was a functioning enterprise which required some non-financial assistance to help it become organized and adapt to growth, change, new markets, etc. Credit alone could not have produced such long-lasting changes to these enterprises, many of which received at least three years of TECHNOSERVE assistance.

## LESSONS LEARNED

The process of developing a cost-effectiveness methodology was long and insightful for TECHNOSERVE staff. In the process we learned many lessons and debated many issues. We generally agree on the final product, but we continue to revise and adapt the system as necessary.

Attached is a matrix which summarizes the strengths, weaknesses, opportunities, and threats from TECHNOSERVE's perspective based on these lessons. (See Appendix 3.) Some other major lessons learned include:

- Valid results depend on accurate data collection. It was difficult to make accurate calculations for older projects for which we did not have corresponding baseline data. The results of present and future projects will be more reliable.
- Implementing a cost-effectiveness system can dramatically improve data collection from the field. Since it may involve substantial changes in information collection, top management should back the concept.
- Once constructed, the model can have other uses, it can be a valuable tool for measuring the sensitivity of projections. Price or quantity fluctuations can be calculated in to determine their impact on an enterprise.
- The real benefits of using this system are to field advisors. Therefore, cost-effectiveness analysis should be conducted in the field and used as a management tool.

The method as stated above is not appropriate for capturing the benefits of assistance TECHNOSERVE provides to institutions. We are working on another model that captures the essence of enterprise analysis, but is more appropriate to institutions.

Once an enterprise folds, few benefits continue to accrue to members. Therefore, our primary concern must be to teach business owners to understand how to run their businesses on their own -- to be able to make future decisions, not just to overcome immediate constraints.

## CONCLUSION

The success of development programs should be evaluated from the beneficiary's perspective. For enterprise assistance programs, the impact on the enterprise must be a critical indicator. To couch success of a program in terms of the ability of an organization to recapture loan funds, or its ability to interact with more and more beneficiaries, does not capture the essence of enterprise development. These are measures which ignore the quality of development assistance provided through time, and the nature of changes which occur as a result of a program. Such measures of success distort the real goals and incentives of program staff to produce long-term, sustainable changes.

Specially designed training and appropriate technical assistance are the critical components of an enterprise program which can change the way that poor entrepreneurs view their businesses. If we can improve the level at which small business owners operate and make decisions, they will have a chance to be self-sufficient. If we focus our efforts on providing credit, without complementing these efforts with training and technical assistance, we are only addressing one of many constraints and risk the overall effectiveness and sustainability of our interventions.

If providing training and technical assistance to enterprise owners is too costly, then we should concentrate on ways to reduce costs and make programs more efficient without compromising the quality. We need to shift our attention away from recovering institutional costs in the short-run. TECHNOSERVE's cost-effectiveness analysis is our attempt to match our concern over program costs with the impact we have on enterprises. Of course, the numbers we come up with will be most valid in their own country context and must be interpreted accordingly. However, by putting ourselves through the process, we will not only learn more about our programs and our organization, we will also benefit from recording this information more systematically. We feel certain that the cost-effectiveness process will help our field offices to do their job better.

Although TECHNOSERVE designed this system to meet its needs, the underlying principles guiding the analysis should apply to other enterprise assistance programs. Enterprise programs are well suited to this sort of analysis because the major determinants of success are measurable gains to owners and employees. The valuation of impact on the broader community helps to keep an organization's perspective on the overall goals of the development process -- to encourage long term positive changes in the lives and livelihoods of low income people.

# APPENDIX 1 - Sample Spreadsheet for Wool Spinning Project

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>A BASIC PARAMETERS</b>													
Group Size	100												
Employment	22												
CPI Index (1987 base)	100												
Exchange Rate	15												
Treasury Bill Rate	0.06												
<b>B BENEFITS WITHOUT TNS PROJECT</b>													
Assume no alternative employment without project (a)													
<b>C BENEFITS WITH TNS PROJECT</b>													
<b>I ESTIMATING INCOME TO FARMERS</b>													
Assume benefits of wool sales outside of Githima economy (b)													
<b>II ESTIMATING ENTERPRISE INCOME</b>													
<b>PRODUCTION:</b>													
Spinners	5	15	20	20	20	20	20	20	20	20	20	20	20
Kg Wool/Month	3	12	12	12	12	12	12	12	12	12	12	12	12
Kg Wool/Year		144	144	144	144	144	144	144	144	144	144	144	144
<b>TOTAL PRODUCTION</b>	(c) n/a	2160	2880	2880	2880	2880	2880	2880	2880	2880	2880	2880	2880
		(d)											
<b>PRICES:</b>													
per kg (in sh.-)	210	210	210	210	210	210	210	210	210	210	210	210	210
<b>TOTAL REVENUE:</b>													
Wool	0	453600	604800	604800	604800	604800	604800	604800	604800	604800	604800	604800	604800
<b>PRODUCTION COSTS</b>													
Wool Purchases	80	80	80	80	80	80	80	80	80	80	80	80	80
Processing Materials	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Wool Proofing	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
Wastage	4	4	4	4	4	4	4	4	4	4	4	4	4
Packaging	3	3	3	3	3	3	3	3	3	3	3	3	3
Direct Labor	50	50	50	50	50	50	50	50	50	50	50	50	50
Unit cost per kg	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1
<b>TOTAL PRODUCTION COSTS</b>	n/a	335016	446688	446688	446688	446688	446688	446688	446688	446688	446688	446688	446688
<b>ADMINISTRATION</b>													
Salaries & Wages	0	26640	26640	26640	26640	26640	26640	26640	26640	26640	26640	26640	26640
Personnel Expenses	0	5328	5328	5328	5328	5328	5328	5328	5328	5328	5328	5328	5328
Office Expenses	500	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
Rent	10	60	60	60	60	60	60	60	60	60	60	60	60
Water	400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Cleaning & Hygiene	120	720	720	720	720	720	720	720	720	720	720	720	720
Transport	0	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200
Repairs & Maintenance	750	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000
Depreciation	1524	18088	18088	18088	18088	18088	18088	18088	18088	18088	18088	18088	18088
Interest	0	3941	0	0	0	0	0	0	0	0	0	0	0

APPENDIX 1 - contd.

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total Expenses	522 27	522 27	522 27	522 27	522 27	522 27	522 27	522 27	522 27	522 27	522 27	522 27	522 27
Net ENTERPRISE INCOME	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207	3207

III ESTIMATING SALARIES & WAGES

Wool	144000	144000	144000	144000	144000	144000	144000	144000	144000	144000	144000	144000	144000
Administration	2220	26640	26640	26640	26640	26640	26640	26640	26640	26640	26640	26640	26640
SALARIES & WAGES PAID	2220	134640	170640	170640	170640	170640	170640	170640	170640	170640	170640	170640	170640

IV SUMMARY OF BENEFITS & COSTS

NET INCOME TO FARMERS (see note b below)

NET ENTERPRISE INCOME	-3304	39207	82676	82676	82676	82676	82676	82676	82676	82676	82676	82676	82676
SALARIES & WAGES PAID	2220	134640	170640	170640	170640	170640	170640	170640	170640	170640	170640	170640	170640
TOTAL BENEFITS WITH TMS	-1084	173847	253316	253316	253316	253316	253316	253316	253316	253316	253316	253316	170640
LESS BENEFITS WITHOUT TMS (see note a below)													
NET PROJECT BENEFITS	-1084	173847	253316	253316	253316	253316	253316	253316	253316	253316	253316	253316	170640

NPV OF BENEFITS (after 1988) 1627429  
 NPV OF BENEFITS (before 1988) -1084

TOTAL NPV OF BENEFITS in schillings 1626345  
 TOTAL NPV OF BENEFITS IN US\$'s exch 15 schillings 108423 0

V PROGRAM COSTS

TMS COST 01-21	1364	33068	33068										
CEPIS Inv	8900												
Fee Income (US\$'s)		4450	4450										
NET TMS COSTS (d)	1364	33068	33068										
Value of TMS Costs (1988 T-bill)							61990 62						

V. BENEFIT/COST RATIO 1 749

NOTES

- It is assumed that those working within the Githima project have no other source of employment
- It is assumed that the purchase of wool is a benefit that is outside the Githima economy and should not be considered a direct benefit
- Financial reports indicate that commercial production did not occur at Githima during 1987 although training did begin. There were some start-up costs which were incurred
- Since production began late, an average of 15 spinners is estimated for 1988. It is assumed that it takes 4 months for spinners to reach 12 kg per month
- CEPIS funds are considered outside TMS costs. TMS costs include \$15,000 raised from Penn Foundation and \$5,000 raised from the Ford Foundation

APPENDIX 2 - Sample Rating Sheet

NON-QUANTIFIABLE BENEFITS MULTIPLIER SHEET

Worksheet 1/21/88

Country: \_\_\_\_\_  
 Project Name: WOOL SPINNING PROJECT  
 Evaluator: TG

	Weight	Value	Weighted Value	Comments
--	--------	-------	----------------	----------

I. Social Benefits

a. Improved Managerial and Technical Skills	5		- 15	
b. Increased Access to Public Services (e.g. banking, extension, health)	4		- 12	
c. Increased Control Over Quality of Life	3		- 12	
d. Greater Participation for Marginalised Groups (e.g. women, ethnic minorities)	2		- 16	
e. Increased Community Solidarity	1		- 18	
			<u>15</u>	

II. Economic Benefits

a. Increased and Sustainable Productivity	5		- 10	
b. Enterprise Replicability	4		- 10	
c. Increased Enterprise Sustainability	3		- 15	
d. Increased Employment	2		- 12	
e. Improved Backward/Forward Linkages	1		- 15	
			<u>15</u>	

III. Policy Benefits

a. Improved National Policy Environment for Rural Enterprises	5		- 10	
b. Regional/Commodity Sector Policy Impact	5		- 15	
c. Institutional Policy Impact	5		- 10	
			<u>15</u>	

45      558

Multiplier =  $558/450 = 1.24$

RATING KEY.

5 - 9    Project has actually had a negative effect in terms of this benefit.

10     . Project has had neither positive nor negative effect with regard to this benefit

11 - 20 . Project has had a positive effect with regard to this benefit.

### APPENDIX 3

## TECHNOSERVE COST-EFFECTIVENESS ANALYSIS MATRIX OF STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS

### STRENGTHS

Shows TNS stewardship, responding to concerns of donors and funding agencies

Provided good basis for project analysis

Instigates substantial discussions on project impact among project advisors.

Helps define project scope

Raises consciousness of relationships between TNS assistance cost and project benefits.

Rationalizes the identification and information collection of project benefits.

Significantly complements project evaluation.

Provides a simulation model (template) that can be improved and adjusted to changing conditions as the project progresses.

Helps insure that baseline data are collected (needed for projections.)

Helpful in developing business plans and projections.

### OPPORTUNITIES

TNS is one of the first PVOs to establish a comprehensive system of information on cost-effectiveness.

Enhances TNS ability to do systematic evaluation of project performance

Enhances fund raising by showing the relationships between costs and benefits.

It has potential to be a new product that other PVOs can adapt for their use TNS can provide assistance in establishing such systems.

### WEAKNESSES

Implementation will take away advisor time from other activities

Reliable data for estimating benefits does not yet exist. Costs for data collection may increase

There is heavy reliance on non-quantifiable indicators This may induce bias of persons doing the ratings.

Difficult to separate out assistance provided by other organizations. Assumes net increases are a result of TNS assistance.

Heavy weights on non-quantifiable benefits may reduce our focus on enterprise development in favor of other community aspects.

Results can be misconstrued if taken out of their country context.

Boils down a project to several numbers, increasing temptation to make decisions based solely on C/E indicators

Its application may be limited to certain projects. It may not be appropriate for evaluating institutional assistance.

### THREATS

Indicators may show negative results or less positive than expected. Negative external forces may not be adequately reflected.

Each program may want to tailor the system so much to their specifics that the system no longer is relatively standardized.

TNS methodology may be viewed as too simplistic in light of the extensive literature on cost-benefit analysis using more sophisticated methods



The SEEP Network

Workshop on Technical Assistance and Training

What difference does it make?  
How can it be done effectively and affordably?

Stephen H. Gross

ACCIÓN International

New York

13 October, 1988

*Creating Employment and  
Economic Opportunities  
in The Americas*

In an effort to provide background for the above, I sent out a page of survey questions to ACCION's thirty affiliated Micro-business Programs. The purpose--to provide a "snapshot" of what is actually being done in this area prior to coming to some conclusions

The first question was concerned with the themes treated in the courses, the length of each course, frequency of each course given, and the average number of participants.

As with the remaining questions, the first perception experience, despite the fact that all of the organizations are affiliated with ACCION and that each has access to all the training materials of the rest of the network, is one of variety and creativity

Some Programs (Bolivia and Brazil) have as many as 12 different themes developed, others only three (Honduras) While some "courses" last only an hour or hour and a half, others consist of sixteen (Honduras) and even fifty-four hours (Arizona) Equally varied were the responses regarding the frequency with which the courses are given (monthly to twice per year) and the number of participants (5 - 60). Themes included Accounting, Marketing, The Business Plan, Taxes, Production Costs, and Human Relations.

Some Programs (ADEMI and AVANCE) did not even have formal training courses. In the case of ADEMI, formal training is not looked upon as a need that cannot be filled by one-on-one in shop contact with the micro-entrepreneur.

#### COST

With regard to the costs of training, the concrete questions were Have you calculated the costs of training? and What is the cost per participant? Also, questions were asked to determine how these costs were being covered

The programs cover their training costs by 1) directly charging

the client herself, 2) using grant funds allocated for this purpose, 3) including this in the price structure for the credit extended or some combination of the three ADIM in Lima and the Fundacion Paraguay in Asuncion have calculated their costs to be \$3.29 and less than a dollar per participant per course respectively

## IMPACT

Do you have a Training Program because it is easier to get funds for training rather than for credit? Or do measurable impact indicators really exist? What are they? How and how often do you measure training's impact on your program?

(MICRO/Arizona) The debate regarding the importance of training and/or capital to micro-enterprises hinges on whether a business person, even with the necessary desire and capital, can actually succeed. Studies point to lack of business management skills as one of the most critical factors causing business failure. Micro, therefore, is trying to address both issues

(Fundacion Paraguaya) Even if training in the beginning is not a felt need, it is a real need which, in time, is recognized as such by the program participant. The Fundacion does not have a training specific evaluation system but rather a global program evaluation each semester

ADIM/Peru We have a training program because the client really needs it. Up until now, we only measure utility and the levels of understanding of the themes covered at the end of each course

PRODEM/Bolivia We do not have measurable indicators at this point. The willingness on the part of the participants to assist at the courses (they are optional) so as to be able to discuss and analyse their problems is our chief indicator

COOPART/Brazil The lack of managerial skills within the informal sector is a limitation just as debilitating as is the lack of access to credit. We see two ways of evaluating the impact of training through the personal testimony of the participants at the termination of each course and through the visits of the Program Promoters which allow them to see management change and improved human relations skills being implemented within their business

ESPEJO/Ecuador Only through training will microentrepreneurs become profitmaking. By learning to correctly administer human, financial and material resources, the microentrepreneur will be able to improve quantitatively and qualitatively her business

ADEMI/Dominican Republic Technical assistance is imparted in the Dominican Republic without formal courses but rather in

one on one meetings of the clients in their shops with well trained program professionals. The chief indicators of the success of this approach to training increasing demand for the services of the Program as well as a high rate of on time repayment. Key to the quality of the in shop training given to microentrepreneurs is an ongoing training program for trainers.

#### FUNDAP/PROSEM/GENESIS EMPRESARIAL/Guatemala

These recently established programs (Quetzaltenango and Guatemala) have both credit and training built in to the original design. It will have both formal classes and in shop managerial training. In time, the latter will be the chief indicator of the efficiency of the former.

ASEPADE/Honduras. Here, regarding impact evaluation of the training program, impact indicators have been determined and make up an in shop follow up sheet which is filled out each semester. An attempt is made to determine the level of application of the concepts and practices taught in the courses.

The relationship between training and an increase in production, sales, earnings is qualified and quantified to the extent possible. While more difficult to measure, attitudinal changes as well as the level of learning are also examined.

#### ADDITIONAL SERVICES

A fifth question. **In addition to business training courses, what other forms of non-credit assistance do you offer to participants?**

Tax seminars  
Microenterprise Expositions  
Licensing Procedures through City Officials  
Formation and encouragement of Microindustrial Chambers of Commerce  
Public Education (to provide a more understanding environment in which to work, in some countries, the informal sector is still seen as more a part of the problem than of the solution)  
Housing loans (home improvement, still in study stage)  
Legal services  
Reproductive Health  
Marketing assistance  
Group purchase of raw materials  
Literacy courses  
Organization of Associations to serve mutual needs of specific groups

## STRONG POINTS

**What do you consider the three strongest assets of your Training Program and/or non-financial assistance?**

People do need training  
Especially basic bookkeeping  
Dire need for small business evaluations (MICRO/Tucson)

Once the initial barrier is overcome (unfelt need), microbusiness people, after their fourth loan, begin to understand the function and practicality of the courses as they integrate what they learn into the daily operation of their businesses (Paraguay)

Progress made in self-affirmation  
Human Relations  
Basic Courses in Administration (ADIM/Peru)

The participants like the courses  
They find them helpful  
They use what they learn. PRODEM/Bolivia

Training  
content and methodology meet clients' needs  
human relations aspect is important

Marketing  
opening up new possibilities  
lowering costs in purchase of materials (Brazil)

The three-phase process of "asesoria" -- 1) diagnosis of business/request for loan, 2) loan delivery in groups of entrepreneurs so as to provide a sense of integration with the program and with other entrepreneurs, and 3) follow-up visits twice per month -- is the key to program expansion, consolidation, and high recuperation rates (ADEMI/Santo Domingo)

Complete methodological guide for trainers.  
Feedback from participants  
Didactic material which meets needs of participants at their level. (PROSEM & GENESIS EMPRESARIAL/Guatemala)

Ninety-nine percent of the participants who begin the sixteen hour courses finish them.  
Training courses are also an integral part of the methodology which leads toward the organization of micro-entrepreneurs.  
And it is working (ASEPADE/Honduras)

**What are the principal challenges or difficulties which your Program faces in the area of business training or other forms**

## of non-financial assistance?

No resources to hire professional instructors  
Need more training materials for business advisors  
Need more technical assistance for specific micro home-based businesses (MICRO/Arizona)

Increase the content of the training materials which, until now, covers the period from the first to the sixth loan (one year) At this point, the micro-entrepreneur needs more specific training

Use communications media not only as a management training tool but also as a means of promoting the program Use chambers of micro industry as extension centers for technical assistance (Paraguay)

Lack of resources  
Lack of motivation of the participants.  
Lack of client time for dedication to education (ADIM/Peru)

Improve existing knowledge of the reality of the microbusiness sector so as to make the training more atuned to its needs

Promote the moral discipline of the participants in their interrelation with the Program and with each other (as in the Grameen Bank).

Form a specialized team of "asesores-trainers" with the qualities and convictions as real agents of change, not with uniformity of thoughts and actions, but rather with diverse opinions and criteria based on an overall motivating force, which is itself an amalgamation of objectives of the Program, the participants and the trainers. (PRODEM/Bolivia)

Financial resources for teaching materials  
Time and distance constraints for the participants who want to assist at the courses In many cases, assistance at courses implies closing the business (Brazil)

Low attendance at training courses  
Lack of sufficient space for courses  
Person in charge of training has not been selected as yet. (PROSEM, GENESIS EMPRESARIAL/Guatemala)

Elevate the status of a real need to that of a felt need  
Create a consciousness among the entrepreneurs regarding the importance of training.  
Help the participant identify the training program as a vehicle toward the formation of organizations in and through which she can resolve in a collective way common problems such as bulk purchasing, quality control, marketing  
Training must deal with themes of immediate interest

If you had to get your ideas across to a group of international experts on training and/or non-credit assistance to microbusinesses in a message of fifty words or less, how would you express it?

Training is dependent on those who give it as well as those who receive. The quality and flexibility of the training support can be as critical as its availability. Professionals who provide the training must know how small businesses operate in reality and be able to communicate with the special audience. The problems and needs of a white male enterprise can be quite different from a minority female, for instance.

The training must be flexible, explaining how a business should work but also providing practical advice on dealing with day-to-day business problems. Business people are primarily interested in learning how to deal with the specific problem at hand, not the abstract problem yet to be faced.

The training must be ongoing through informal peer advice and counseling as well as formal classroom style. The problems change daily and so should the training. Many communities have the capacity within their existing corporate, educational and organizational structure to provide management training and technical support. (MICRO/Arizona)

The Program of support for the microbusiness has two complementing components, the first of which is the credit component which satisfies the immediate need for working capital. Once this need begins to be partially satisfied, then the subsequent though equally important need, that of improved management practice can be addressed through the training component. (Fundacion Paraguaya/Asuncion)

Training is a challenging and transforming instrument of the microentrepreneur's reality. It is challenging because it pretends to know, not only the critical reality in which he lives in order to transform it, but also the manner in which the entrepreneur lives it so as to be able to measure the results of the activities aimed at self-development.

The training process should be cognitive, capable of defining its own content, technique and methodology, not simply accepting those adopted from ways of thinking and acting which prescind from the culture of those the training is intended to serve, therefore, the methodology should be participative, politic and dialectic. (PRODEM/Bolivia)

Few microbusiness people have business skills which go beyond the

empirical Few have developed personal relations skills  
Their businesses suffer from these deficiencies Training  
helps address these needs and results are measured in increases  
in production, profits, and improved social skills (Brazil)

Training is expensive and is not effective for all microentrepreneurs  
Some, however, can profit much from training but it must  
be designed to meet the specific needs of the client  
The participant must feel and recognize her need training if  
it is to be taken full advantage of Programs should not require  
training for all their clients but should be able to offer it for  
those interested Clients should pay the costs of the training  
(AVANCE/Costa Rica)

Training is key to the growth of the microenterprise It is  
imperative, therefore, that support programs include with  
credit services those of training, since alone, neither of  
the two services, would achieve acceptable results

At the initial stages of the Program, the microentrepreneur  
generally does not feel the need to receive training Because  
the need, though real, is unfelt, there is resistance to and  
poor assistance at the training sessions In time, however,  
as the effects of the training set in, the participant  
internalizes  
this need and applies what he learns in his day to day  
operations  
(FUNDAP/PROSEM/GENESIS EMPRESARIAL/Guatemala)

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## CONCLUSIONS

- 1)
- 2)
- 3)

ATI S MACRO-POLICY ACTIVITIES  
AS NON-FINANCIAL ASSISTANCE

by

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## Introduction

ATI's mandate to get appropriate technologies into the hands of the rural and semi-urban poor is strongly affected by the macro-policies of national and local governments and financial institutions. In most cases, the general social and economic environment as well as industry-specific regulations, taxes, subsidies, trade and financing policies, and science and technology research and dissemination policies favor large-scale and urban enterprises. As a result, many appropriate technologies remain relatively unused. These technologies tend to be more labor intensive, less capital intensive, and require less foreign exchange than "modern," large-scale technologies. They are more compatible with available skills and resources and more socially and environmentally sound.

Businesses decide at the micro level which technologies to adopt. These decisions are based on the (1) objectives of the firm, (2) resources available to the firm and relative prices, (3) size and type of the market, and (4) knowledge of available technologies. Frances Stewart of Oxford University emphasizes that government macro-policies can affect these micro-level factors through overall economic conditions (e.g., the money supply, interest rates and the availability of credit, aggregate demand, currency exchange rates, and the distribution of income), direct public expenditures (including investments in infrastructure or enterprises, human resource development, subsidies, and tax preferences), and regulations (especially those pertaining to wage rates, the transfer of technologies, foreign investment and trade, and the size, composition and ownership of economic units).

In some cases, technologies with low or negative social value persist because of inappropriate macro-policies. Special interest groups influence government policies to varying degrees. Current options may be limited by past decisions. Governments and multinational corporations also play a direct role in R&D and the choice of technologies. R&D tends to concentrate around the types of technologies and products currently in use.

Thus, to ensure successful demonstration projects, ATI must seek to influence the relevant policies in the areas where we work. Moreover, although demonstration projects are important in stating the case for appropriate technologies, this approach is not enough. To have broad impact and to help implement changes in existing policies, ATI must share its experiences with national and local governments and financing institutions.

As part of its work in the area of macro-policies, ATI has supported a book of case studies and organized and held seminars on micro enterprise development. ATI has also commissioned additional studies by consultants. In addition, ATI staff have examined the connection between micro-level projects and macro-

policies in our own field program of demonstration projects (Hyman 1987a and b, 1988a and c, forthcoming a - b)

### **Seminars on Micro-Enterprise Development**

In the fall of 1987, ATI sponsored a seminar on the role of credit in small- and micro-enterprise development. Panel discussants included Jaya Arunachalam (Working Women's Forum), Carlos Castello (Accion International - Colombia), Maria Marta Jimenez (FINCA - Costa Rica), and Jeffrey Ashe (Consultant). In addition to ATI staff, guests included representatives of A I D, the InterAmerican Development Bank, and the World Bank. The discussion focused on the characteristics of successful examples of micro-credit programs, relative priorities for income generation versus employment creation, the economic impact of the programs, and their relation to macro-economic policies.

In October of 1987, ATI organized a forum, "Appropriate Technology for Small Enterprise Development" at the U S Congress. The speakers included Representative Benjamin Gilman (R-N Y), George Ingram (House Committee on Foreign Affairs), several members of ATI's Board of Trustees, ATI's President, Dr Nyle Brady (Senior Assistant Administrator, A I D Science and Technology Bureau), and representatives from three NGOs in developing countries -- Barnabas Anguh (founder of a small private firm in Cameroon that manufactures and repairs equipment for farm use and agricultural product processing), Dr Malee Suwana-adth (Director of a foundation in Thailand that applies science and technology to rural development), and Ing Oscar Arce (Vice Rector for Academic Research of the Costa Rican Institute of Technology).

### **Macro-Policy Book**

ATI commissioned a set of case studies on the effects of macro-level policies on the potential for adopting appropriate technologies. These studies were edited by Frances Stewart and published by Westview Press in 1987 under the title Macro Policies for Appropriate Technology in Developing Countries. These studies cover the following topics: (1) classification of macro-policies (Frances Stewart), (2) technology choice in agriculture in India (Ashok Rudra), (3) irrigation technology in Bangladesh (Stephen Biggs and Jon Griffith), (4) small-scale paddy threshing in Thailand and the Philippines, (5) rural linkages in the Philippines and Taiwan (Gustav Ranis and Francis Stewart), (6) small-scale sugar manufacturing in India and Kenya (Raphael Kaplinsky), (7) technology choice in public enterprises in Kenya and Tanzania (Jeffery James), (8) in-plant technical change in Latin America (Phillip Maxwell), (9) the standardization of machine tools in Japan and China, and (10) an interview and conclusions for the set of studies (Frances Stewart).

### **Macro-Policy Conferences**

ATI, in collaboration with Queen Elizabeth House of Oxford University and the Thailand Development and Research Institute, held a conference March 21-24, 1988, in Pattaya, Thailand to discuss "Implications of Technology Choice on Economic Development" In addition to ATI, funding came from the Netherlands Government and the International Development Research Center of Canada

The following presentations were made at the Asia Conference

Liedholm, Carl "The Effect of Policy and Policy Reform on Non-agricultural Enterprises and Employment in Developing Countries A Review of Past Experience "

Duff, Bart "Changes in Small-Farm Rice Threshing Technology in Thailand and the Philippines "

Ranis, Gustav and Frances Stewart "Rural Linkages in the Phillipines and Taiwan "

Bautista, Romeo "Macro-Policies and Technology Choice in the Philippines "

Santikarn, Minsarn "Macro-Policies for Appropriate Technology Case Studies in Thailand "

Ahmad, Q K "Appropriate Technology and Rural Industrial Development in Bangladesh The Macro Context "

Biggs, Stephen "Irrigation in Bangladesh "

Discussion groups examined issues relating to (1) rural development, (2) urban development, (3) Role of the public sector, and (4) gender-related concerns

The Asia conference was well attended by government officials, bankers, and private sector representatives from Pakistan, Bangladesh, Thailand, Sri Lanka, Philippines, Malaysia and Indonesia Two Thai TV channels covered the conference, as did Thai newspapers Annex A contains the report summarizing this conference

The Africa Conference had the same basic themes as the Asia Conference, but focused on issues specific that region It was held in Nairobi, August 28 - 31, 1988 In addition to government officials and academicians, the Africa Conference included representatives of some NGOs that work at the grassroots level The following papers were presented

Hagglade, Steve, Carl Liedholm, and Donald C Mead "The Effect of Policy and Policy Reforms on Non-Agricultural Enterprises and Employment in Developing Countries A Review of Past Experiences "

- Hyman, Eric "The Design of Micro-Projects and Macro-Policies Examples from Three of ATI s Projects in Africa "
- Wangwe, S M , M S D Bagachwa "Impact of Economic Policies on Technological Choice and Development in Tanzania Industry "
- Bagachwa, M S D "Technological Choice in Industry A Study of Grain-Milling Techniques in Tanzania "
- Coughlin, Peter "Technology and Industrial Organization The Kenyan Case "
- Kaplinsky, Raphael "Appropriate Technology in Sugar Manufacturing "
- Piasecki, Ryszard "Appropriate Technologies in Sub-Saharan Africa "
- Chuta, Enyinna "The Impact of Macro-Policies on Technology Choice, Development and Employment in Nigeria "
- Ndlela, Daniel "Macro-Policies for Appropriate Technology in Zimbabwean Industry "

Discussion groups covered policies for (1) pricing, taxation, and subsidization, (2) banking and credit, (3) science and technology, (4) financing rural development and infrastructure, and (5) regulatory controls and trade

The Latin America/Caribbean Conference will be held in Mexico City on October 25-29, 1988 The theme of the Latin America/Caribbean conference is "Economic Policy, Technology, and Rural Productivity" The following papers will be presented there

- Reca, Lucia, Carlos Garramon, and Edith Obscatko "The Policy Context--Argentina "
- Basco, Mercedes "Effects of Macro-Policies on Project Cachi in Argentina "
- Salazar, Brandao "The Policy Contest--Brazil "
- de Figueredo, Romeo "Effects of Macro-Policies on Technical Assistance Project in Brazil "
- de Marulanda, Nora "The Policy Context--Colombia "
- Guerrero, Rodrigo "Effects of Macro-Policies on Fundacion Carvajal in Colombia "
- Doryan, Eduardo "The Policy Context--Costa Rica "
- Pacheco, Francisco "Effects of Macro-Policies on the

Lime Project in Costa Rica "

Conde, Leonardo "The Policy Context--Dominican Republic "

Representative of APEDE-CIMPA "Effects of Macro-Policies on the CIMPA Program in the Dominican Republic "

Pais, Rodolfo "The Policy Context--Guatemala "

Gutierrez, Roberto "Effects of Macro-Policies on the FUNDAP Wool Project in Guatemala "

Cotlear, Daniel "The Policy Context--Peru "

Palomino, Jose "Effects of Macro-Policies on the Annatto Project in Peru "

ATI, in collaboration with the Industrial Development Bank of India (IDBI) and the Government of India, is also planning a macro-policy conference targeted specifically to India policies. This conference, to be held in New Delhi in early 1989, will build upon the framework used in the earlier regional conferences.

#### Other Studies Commissioned by ATI

Some studies commissioned by ATI relate directly to ATI's demonstration projects, while others look at trends in new technologies. Raphael Kaplinsky of the University of Sussex prepared three studies for ATI. The first examined clay brick manufacturing in Botswana, Kenya, and Tanzania and the tradeoffs involved in the choice of production technology. Mechanized production can turn out an inexpensive, higher quality product for consumers, while manual production of a lower-quality and higher-cost product generates more employment. This study also examined the equity effects of alternative ways to disseminate brick-making technologies.

The second paper by Kaplinsky questioned whether inherent economies of scale exist in technologies and whether mass production is necessarily efficient and equitable. To reduce economic instability, he recommended that more attention be paid to downscaling of plant size, product nature, and firm size. He also noted the emergence of a new paradigm of decentralized production through micro electronics technologies. From these observations, he concluded that science and technology organizations in LDCs need to reorient research, especially in capital goods production, to reduce dependence on inappropriate technologies from industrialized countries.

Kaplinsky's third paper examines the experience of downscaling a modern technology -- mini-cement production in India. This process required levels of technological development and management that are well beyond the level generally needed in

upgrading village-level equipment, and was only commercially viable under the special conditions prevailing in India

Jeffrey James of Boston University classified technologies into five categories and assessed their relative potential for appropriateness in LDCs. Upgrading traditional technologies is often the most cost-effective way of reaching the rural and semi-urban poor. In downscaling modern technologies, many of the economies of scale that made the original technology efficient may be lost. Most off-the-shelf modern technologies and innovative replacement technologies tend to be less appropriate for small farms and firms in LDCs because the research that produced these technologies was carried out in developed countries. However, some older modern technologies may be appropriate for medium-scale urban enterprises. If generated through in-country R&D, innovative replacement technologies may also play an important role in LDCs.

Steen Joffe and Martin Greeley of the University of Sussex concluded that new plant biotechnologies will revolutionize agricultural productivity. Changes will occur in the cost and composition of agricultural inputs, production methods, and composition and processing of products. As international comparative advantage shifts, these changes will present both a threat and an opportunity for LDCs. The authors urge greater recognition of the needs of resource-poor farmers for low-input agriculture. In addition to the inherent characteristics of the technologies, their impacts will be affected by, among others, the degree of privatization, control over research, and the identification of end-user needs and rural institutions.

### Plans for the Future

In the future, macro-policy activities will comprise 5-10% of ATI's program. Although consultants have undertaken the bulk of the policy related work up to now, ATI expects to have a small professional staff working in this area. This in-house capability will allow ATI to respond to requests from A I D missions and A I D Washington, donor agencies, multilateral development banks, and host-country governments to assist in analyzing the effects of existing policies and working with development professionals and decision makers to help implement recommended policy reforms.

The Government of the Netherlands is considering providing a large sum of money to the World Bank for on-lending to 3-4 countries that agree to implement policy reforms recommended by the macro-policy conferences organized by ATI. It is expected that ATI will have a role in providing technical assistance to support this effort through field missions to assess the impacts of existing policies, identify possible reforms, and monitor and evaluate implementation of the reforms.

### Evaluation Issues

ATI has a Cooperative Agreement with the Science and Technology Bureau of A I D that provides the mandate and hence the basis for evaluating ATI s work. ATI is charged with supporting demonstration projects that test the commercial viability, economic sustainability, and social appropriateness of technologies that are beyond the R&D stage, but which have not yet proven in small enterprise settings. Technology is defined broadly to include equipment and processes as well as dissemination strategies for financing and management. The purpose of the demonstration projects is to determine whether or not replication should be encouraged.

In addition to the field program, the Cooperative Agreement calls for ATI "involvement in the policy aspect of the appropriate technology process, including the promotion of a climate receptive to the development, adaptation, and utilization of appropriate technology in developing countries." Thus, ATI s role as an applied research organization and agent of replication and policy change differs from that of most PVOs, which are mainly concerned with poverty alleviation, provision of social services, training, and institution building.

It is easier to evaluate the success of demonstration projects than policy activities. Although policy reforms can ultimately have a much larger and more widespread effect on the potential for use of appropriate technologies than a single demonstration project, identifying the location and impact of policy changes can be difficult. First, one has to keep track of what policy changes are occurring. Second, assessment of the impacts of the policy change requires an understanding of many inter-related sectors of an economy and other exogenous and endogenous factors that might also be changing over time. There may also be lag times in the response of entrepreneurs and other economic actors as they find out about the policy change and react to it.

Third, the causal links between efforts to influence a policy and decisions to adopt reforms are difficult to prove because they may be indirect or dispersed over time and space. Since many factors simultaneously operate on decision makers, to what extent did participation at a particular conference or exposure to a certain publication affect the decision? At most, you can ask decision makers about what they think has influenced them, but they might not even be aware of the relative importance of the variables affecting their decisions. ATI has used this direct questioning approach to evaluate the macro-policy conferences (see Annex B for the evaluation instrument).

It is apparent from the response to ATI s recent macro-policy activities that there has been a definite change in attitudes toward appropriate technologies and micro- and small-enterprise development within the LDCs. The allegations that were sometimes made during the 1960s and 1970s that small firms

were inefficient and unimportant or that labor-intensive technologies were backward and designed to keep LDCs poor and uncompetitive with developed countries are voiced much less often now. Today, there is increasing awareness that conventional development strategies have not worked. Such strategies often have focused on provision of large-scale infrastructure and financing for capital-intensive industries for export or import substitution. They have failed to stimulate sustainable economic growth in most cases, resulting in the generation of large losses and an increased burden of private- and public-sector foreign debt. Moreover, trickle-down approaches have not improved the welfare of the rural and urban poor and women, in particular.

Nevertheless, there are cases when the effect of ATI's activities on policy changes are direct and known. This is most often the case when the policy reform is associated with direct intervention to facilitate implementation of a particular demonstration project or replication. For example, commercial banks in the Chapingo area in Mexico changed their lending policies so that farmers participating in a project could receive small loans allowing them to purchase better inputs. In another case, the Government of Zimbabwe agreed to change its policy that had forced small-scale producers of sunflowerseeds to sell their harvest to a parastatal, rather than processing it themselves in village-level equipment.

In summary, policy changes can have substantial impacts and the policies of government agencies and private sector institutions can be influenced through research studies, publication of case studies, conferences and seminars, and direct lobbying. However, conventional tools for evaluation are poorly suited to determine the existence and impacts of policy reforms. Any information on how other organizations have dealt with this problem would be appreciated.

## REFERENCES

- Hyman, Eric 1987b "The Identification Of Appropriate Technologies for Rural Development" Impact Assessment Bulletin 5, No 3 35-55
- Hyman, Eric 1987a "The Strategy of Production and Distribution of Improved Charcoal Stoves in Kenya " World Development 15 375-386
- Hyman, Eric 1988a "The Appropriateness of Terrocement Boats for Small- and Medium-Scale Fishing on Lake Malawi " Agricultural Administration and Extension 28 113-131
- Hyman, Eric 1988b "The Choice of Technology and Scale in Coconut Processing in the Philippines " Washington, D C ATI
- Hyman, Eric 1988c "The Range of Choice in Palm Oil Processing Technologies for Cameroon " Washington, D C ATI
- Hyman, Eric forthcoming "Reorienting Export Production to Benefit Rural Producers Annatto Processing in Peru " Journal of Rural Studies
- James, Jeffrey 1984 Upgrading Traditional Rural Technologies Washington, D C ATI
- Joffe, Steen and Martin Greeley 1987 The New Plant Biotechnologies and Rural Poverty in The Third World Washington, D C ATI
- Kaplinsky, Raphael 1986a ATI and the Experience of Clayorich Manufacture in Three African Countries Production By the Masses or For the Masses Washington, D C " ATI
- Kaplinsky, Raphael 1986b Change in Economy of Scale The Implications for Appropriate Technology Washington, D C ATI
- Kaplinsky, Raphael 1986b The Experience of Mini-Cement What are the Lessons for the A T Movement? Washington, D C ATI
- Richman, Arlene (ed ) 1988 Reaching the Poor Majority Via Technology Transfer of Appropriate Technology for Small Enterprise Development Washington, D C ATI

REPORT ON THE CONFERENCE ON  
THE IMPLICATIONS OF TECHNOLOGY CHOICE  
ON ECONOMIC DEVELOPMENT

This report will summarize the main themes and issues discussed and the major conclusions arrived at during the 1988 International Conference on the Implications of Technology Choice on Economic Development held at Pattaya, Thailand from March 21-24, 1988

The conference was spread over five sessions and four group discussions. It was participated in by, amongst others, representatives from several regional countries Bangladesh, Indonesia, Malaysia, Pakistan, the Philippines, Sri Lanka and Thailand. Besides academicians, there were representatives from the government, the private sector and non-governmental organizations. A total of seven papers were presented in the conference. The first session was held on the morning of 22nd March and started with an opening address by Dr Sanga Sabhasri, the Permanent Secretary of the Ministry of Science, Technology and Energy, Government of Thailand, followed by opening remarks by Dr Phaichitr Uathavikul, President of the Thailand Development Research Institute and Mr Ton de Wilde, Executive Director of Appropriate Technology International. This was followed by a keynote address by Dr Frances Stewart and the presentation of the first paper of the conference titled "The Effect of Policy and Policy Reform on Non-agricultural Enterprises and Employment in Developing Countries: A Review of Past Experience" by Dr Carl Liedholm.

Three papers were presented in the second session also held on 22nd March. These were, "Changes in Small-Farm Rice Threshing Technology in Thailand and the Philippines" by Dr Bart Duff, "Rural Linkages in the Philippines and Taiwan" by Prof Gustav Ranis and Dr Frances Stewart and "Macro-Policies and Technology Choice in the Philippines" by Dr Romeo Bautista. The third session held on the 23rd March heard one paper on "Macro-Policies for Appropriate Technology: Case Studies in Thailand" by Dr Mingsarn Santikarn. The last two papers, both of which were case studies on Bangladesh, were presented in the fourth session, also held on 23rd March. These were titled "Appropriate Technology and rural Industrial Development in Bangladesh: The Macro Context" by Dr. Q K Ahmad and "Irrigation in Bangladesh" by Dr Stephen Biggs. In each of these sessions the presentation of papers were followed by discussions both by pre-designated discussants as well as from the floor.

After the fourth session, the participants broke up into four groups which discussed relevant issues in the rural, urban and public sectors and with regard to women respectively. The

group discussion reports were presented in the fifth session. The conclusions of these group discussions are also incorporated in this report. The sixth and final session was held on the 24th of March and consisted of final remarks by the panel of presenters and a selected panel of discussants. These were followed by a final address by Dr Frances Stewart and Dr Leobardo Jimenez Sanchez, Chairman of Appropriate Technology International Board and a vote of thanks by Mr Ton de Wilde.

An informal agenda for the conference was provided in the keynote address by Dr Frances Stewart where she provided a definition of appropriate technology and a classification of macro-policies which affects the choice of appropriate technology, and summarized the findings of seven studies conducted earlier in this area, three of which were also presented in this conference. At its simplest, appropriate technology (AT) is the technology which makes the best use of resources and best help a country meet its needs. To be appropriate, a technology will need to be consistent with the social, economic and cultural conditions of the country in which it is going to be used. In the context of most developing countries AT would thus tend to be labor intensive, smaller scale, more rural, use local materials and produce appropriate products. By that criterion, most technologies currently available tend to be inappropriate since they are developed in contexts quite different from those prevailing in most developing countries.

However, although appropriate technologies are available in many industries and are not necessarily inefficient, their use is rather limited and in most developing countries the bulk of investment is in inappropriate technologies. An important reason for this is the existence of inappropriate macro-policies. Macro-policies consist of general government policy decisions that affect choice and development of technology. They determine the environment in which decisions regarding the choice of technology are made.

The actual choice of technology is made at the micro-level by a variety of micro decision-making units - private firms, large and small, foreign and domestic, parastatals, cooperatives, small and family enterprises, etc. They choose their technology in the light of four important factors: these are, 1) their objectives, which encompass maximizing profits, satisficing, maximizing family income and employment, etc., and can vary according to the nature of the unit. 11) resources, i.e. the availability and price of resources such as labor, capital and raw materials, facing the micro-unit, these can also vary with the nature of the unit. 111) markets, i.e. low or high income markets, export or domestic markets, these influence the nature of products produced and consequently the choice of technology and finally, 1v) the range of technology available to the micro units. Each of these factors, in turn, can be influenced by

government macro-policies Thus macro policies such as minimum wage legislation, credit and interest rate policies, exchange rate policies, etc , affect resources Trade policy, products policy, information systems and policies affecting income distribution in general (both vertical and horizontal) can affect markets Finally, technology is a function of government policies towards research and development and information systems Thus macro policies influence the choice of technology through the four routes described above

In addition to each policy, the composition of units in the economy, i e the proportion of investment conducted by different types of units, has a bearing on the overall choice of technology because there are systematic differences with respect to choice of technology between types of units

Seven empirical studies whose findings were summarized in Stewart s address provide evidence in support of the argument that macro-policies affect technology choice through the routes identified in the above classification A study of parastatals in Tanzania and Kenya showed, for example, that despite the existence of more appropriate technologies and despite (in Tanzania), the government s declared objective of equality which should have been supportive of AT, parastatals consistently chose inappropriate techniques The study explained this in terms of bureaucratic objectives, which are to increase investment and expand output, and since investment was mainly foreign-aided and often tied-aid financed, these objectives led to foreign and inappropriate technology choice Many of these studies also found foreign aid donors supporting mainly inappropriate technologies such as a large integrated rice mill in the Philippines and a capital-intensive sugar mill in Tanzania Once again these were attributed in the studies to the particular type of objectives which guide donor agency behavior

Similarly, the studies also showed how various government policies affected resources, markets, the availability of technology and the composition of units Another important factor which was highlighted was growth linkages between agricultural and rural off-farm activities The latter generally use more appropriate technology, on the average, and their development is a function of not only the growth of the agricultural sector but also the nature of its linkages within this sector Finally, the studies highlighted the fundamental importance of political economy factors These factors can explain both why inappropriate policies are adopted and why they are not changed even when it is known that they are inappropriate Although the studies covered a wide range of activities in a wide range of countries, the conclusions in this regard were strikingly similar Gains from AT went to poorer sections, small farms and firms and those in the informal sector While losers were generally large landlords, large firms, MNCs,

etc The same distribution of gains and losses showed in every study and in countries of various types, i e planned economies and less planned economies, aid dependent economies and less aid dependent economies, countries where multinational companies are welcomed and where they are not A country which was relatively free of such political economy problems was Taiwan, where an early displacement of local elites and an early and effective land reform neutralized old political forces who, in the course of time, were replaced by new political forces rising from dynamic small scale industry Consequently, the macro policy framework in this country was found to be more conducive to the adoption of appropriate technology An important question then was how to solve these political economy problems Three suggestions put forward included choosing non-confrontational policies such as support for agriculture, developing new technologies which may increase gains to all parties and gradually building up new interest groups

The classification outlined in the keynote address and the findings summarized therein were meant to be treated as an agenda for the conference, being strengthened or rejected in the light of the experience of the region The subsequent presentations and discussions were accordingly carried out in the light of Dr Stewart s initial presentation The themes and issues covered in the discussions and the conclusions reached can be divided into two categories those which provided new evidence on the initial classification and those which went beyond it and suggested important new areas worthy of further study Accordingly, the remainder of this report is divided into two parts first, the new evidence on the initial classification are summarized, this is followed by a summary of the important new themes emphasized at the conference

The fact that macropolicies are relevant and have an important bearing on technology choice was further confirmed by the paper by Liedholm et al Liedholm and his co-author surveyed the findings of a large number of studies which evaluated the nature and extent of policy-induced distortions in the economies of various LDCs and paid particular attention to the differential impact of policies on non-agricultural enterprises according to size and location The findings suggest that a wide array of policies affected the choice of technique These policies, which interact to form a complex policy environment in which non-agricultural enterprises operated, can be categorized in terms of the channels through which they affect different firms Thus, in the context of the factor market, there are policies which affect the price and availability of capital, labor, other inputs, and regulatory policies which affect the relative profits of different producers In the output market, there are policies which affect demand for domestic products through the price of competitive goods, through sectoral income distribution (e g agriculture vs industry, rural vs urban, etc ) and through

vertical income distribution and finally price controls for finished goods. Some policies, defined broadly, affect both markets, e.g. policies relating to import duties and controls, exchange rates and controls and price controls.

The magnitude of the effects of the policy distortions varied from country to country but some general patterns could be identified. Thus, labor market distortions appeared to be relatively minor in most developing countries while, on the other hand, in capital markets, the cumulative effects of various policies led to substantial distortions in the price of capital. Moreover, the effects of these policy distortions were not neutral with respect to the size and location of firms. Due to segmentation of factor markets, large firms typically faced higher wage rates than smaller firms, even after quality adjustments, while the latter faced higher capital costs than the former, consequently the labor-capital price ratio was higher for larger firms. This segmentation was partly the result of government policies. In the capital market, for example, governments either implicitly or explicitly impose interest rate ceilings or credit controls on the banking system that tend to keep these rates low. Faced with an excess demand for funds, banks and other formal sector financial institutions then generally respond by rationing the scarce funds by giving priority to their large scale clients.

The popular view that small enterprises face higher interest rates due to higher administrative costs and high risks was contested, findings suggest that in carefully designed credit programs for small enterprises administrative costs as well as default rates are not any higher than for large enterprises.

Different kinds of firms are differentially affected by other types of policies also. Thus, in some countries, many capital goods, as well as intermediate inputs, used by small firms were treated as consumer goods and subjected to higher duties (e.g. sewing machines in Sierra Leone). Secondly, in many countries, large enterprises are often granted investment incentives which include imports of capital goods at zero or low duties, small firms are often formally excluded from such incentive schemes or even if included are either unaware of them or unable to undertake the protracted bureaucratic procedures usually required to obtain them. In the context of the output market, available evidence suggests that the degree of tariff protection and export assistance often varies according to the size of the enterprise. A study in Indonesia, for example, found a negative correlation between the share of small enterprise production in a particular industry and the effective rates of protection. Finally, trade regimes in many countries have an indirect differential impact on firms through the bias which they have against agriculture and in favor of industry.

A number of other papers presented in the conference also

confirmed the presence of significant policy-induced distortion. Bautista's study on the Philippines suggested, for example, that various macro-policies such as trade and exchange rate policies and industrial incentives not only encouraged the choice of capital-intensive techniques in each industry but also distorted the structure of industries by encouraging the growth of capital-intensive industries. Thus, for example, export industries, which are, on the average, more labor-using, have been continuously discriminated against, although the degree of discrimination has diminished over time. Similarly, the agriculture sector, which is relative more labor-intensive, has also suffered from different kinds of policy biases. Bautista's paper also confirmed that various policies in the Philippines effectively discriminated against small and remotely located firms in manners similar to those described in Liedholm's paper.

In Bangladesh also, as the two case studies on this country showed, there were substantial policy distortions having the same capital-cheapening bias. However, although macro-policies tended to be inimical to appropriate choice of technology in general, they were not uniformly bad (in Thailand, for example, distortions appeared less serious) and some efforts were made in different countries to adopt improved policies. Thus in Bangladesh, for example, the recent industrial policy contains proposals for facilitating resource availability to small enterprises. In the Philippines, the bias against exports and agriculture has gradually been brought down over the years.

Political economy was underlined as a major problem. It was emphasized that the influence of interest groups not only lead to the adoption of wrong policies, but wrong policies, in turn, can create vested interests which make policy change even more difficult in the next round. In the Philippines, for example, the strategy of import-substituting industrialization created vested interests in the form of industrialists, businessmen and bureaucrats who have opposed (and continue to) changes in the policy which can lead to more appropriate choice of technology. On the other hand, technocrats having a strong faith in export-led growth came to occupy influential positions in the government during the 1960s and, acting as de facto representatives of the politically weak class of exporters, succeeded in introducing some policies in favor of the export sector. This suggests that there is some scope for pushing through appropriate policy changes by building up new interest groups. In Bangladesh, the rural poor who are generally users of appropriate technology are ill-organized and have little political voice, the rural rich, on the other hand, have substantial political influence, at least at the local level, but they are users of relatively more inappropriate technologies. Various urban groups, who usually gain the most from inappropriate technology are also the ones with the strongest influence on policy making. But even here some institutional developments such as the growth of non-

governmental organizations (NGOs) who have tried to organize landless laborers, small farmers and women may eventually increase the political influence of these groups. Thus, although political economy problems persist and are serious, a scope exists for changing the balance of forces. This task would be facilitated if researchers are able to make the choices that exist more obvious.

New evidence was also provided on the role of objectives as determinants of technology choice. In Thailand, for example, spinning firms were found choosing very modern technologies although hypothetical cost calculations suggested that intermediate technologies were not only more appropriate but also had less unit costs of production. Firms were, therefore, satisficing rather than maximizing and it was suggested that the lack of a competitive environment was responsible for this behavior. Similar behavior was reported in a number of other industries in Thailand. On the other hand, in the more competitive weaving industry relatively less modern techniques had been chosen, often by the same firm which had chosen more modern techniques for their spinning units.

Another interesting manner in which objectives might affect the adoption of appropriate technology was mentioned in the case of NGOs in Bangladesh. Although these organizations have made some contribution towards technological innovations, the latter is still low on the list of priorities of most NGOs, since they are more concerned with expanding the coverage of their operations both geographically and in the number of income generating activities created. This happens because they are generally dependent, for funding, on external donors who are more interested in quick tangible results.

The role of donor agencies in influencing the choice of technology repeatedly came up in the discussions. It was suggested in Liedholm et al's paper that leverage and conditionalities which are important means by which donors have influenced macro policy formulation in LDCs in the past is likely to have a limited impact as far as policies concerning employment and choice of technique are concerned, essentially due to the non-crisis nature of these issues compared to issues relating to stabilization and foreign exchange crises where these methods of influence have historically worked better. It was thus suggested that the most important contribution of the donors can probably come through assistance in building up indigenous capacities for policy analysis which may result in appropriate changes in macro-policies subsequently. The areas of donor support can include strengthening the data base on which policy analysis is carried out as well as enhancing the understanding of the complex ways in which policies affect different sectors of the economy.

The actual role that donor agencies have played in the past

(and/or are playing at present) in directly influencing the choice of technology was also discussed. In the case of irrigation in Bangladesh, for example, it was found that although some donor agencies, such as the UNICEF, supported labor-intensive techniques like the manually operated shallow tubewells (MOSTI), most agencies supported inappropriate technologies. An interesting dualism was observed within particular donor agencies which provided some assistance to the more appropriate techniques while providing the bulk of their assistance to large scale irrigation techniques.

The role of products and markets came up during the discussions. It was asked, for example, whether countries which are export-oriented are constrained by the nature of export demand in the choice of products. It was pointed out, however, that external markets are not necessarily homogenous, various niches exist in these markets which can be served by products produced by relatively appropriate techniques. The study by Ranis and Stewart showed, for example, that while both the Philippines and Taiwan exported canned pineapples, in the former, multinational companies using capital-intensive techniques produced high-quality products which were then exported to high-income markets, whereas, in Taiwan, local companies adopted more labor-intensive methods, producing relatively lower quality canned pineapples and then successfully exporting them to lower income consumers in advance countries.

There was some debate on whether small scale firms, who are usually more labor-intensive in their operations, are necessarily also more efficient. The evidence seemed mixed and suggested that there might not be a monotonic relation between size and efficiency although there were a wide range of industries in many countries where small scale firms happened to be, on the average, more efficient than their large scale counterparts. The need to keep in mind differences within the small scale sector (e.g. between the very small, who are usually the most inefficient, and the small, and between small firms situated in different locations) was also stressed. The importance of the composition of units as a major determinant of technology choice and potential object for policies was, nonetheless, stressed.

Another important area not in the initial classification but emphasized in the conference was the issue of rural linkages and their impact on promoting appropriate technology. It was shown in the study on rural linkages in Taiwan and the Philippines by Ranis and Stewart, that rural industries usually use more appropriate technology so that development of rural industries can be considered to be an effective means of promoting appropriate technology. However, as the comparative experiences of Taiwan and the Philippines show, the growth of rural industries is a function not only of the rate of growth of agricultural output but also the nature of the linkages between

agriculture and rural industry (linkages include consumption linkages as well as forward and backward production linkages) In Taiwan the rate of growth of non-agricultural employment in the rural areas was more than twice the rate of growth in the Philippines at a time when agricultural growth rates were similar. Reasons for these differential trends included the relatively lower capital-intensity of agricultural operations, the rapid growth of labor-intensive crops, the more decentralized processing of agricultural crops and the availability of better rural infrastructural facilities in Taiwan as compared to the Philippines. Thus an important conclusion of the study was that macro-policies which encourage more labor-intensive techniques in agriculture, growth of labor-intensive crops, decentralization of agricultural processing and development of rural infrastructure were likely to have an indirect beneficial impact on the spread of appropriate technology.

Finally, among the subjects covered in the initial classification, the issue of R & D for appropriate technology and the institutional framework for carrying out R & D was the subject of much discussion. A number of important points were made. The experience, as described in Duff's paper, with the axial flow thresher, whose labor saving features made it socially inappropriate in one country, i.e. the labor-abundant Philippines, and socially appropriate in another, i.e. Thailand, which had a relative scarcity of labor, led to the suggestion that R and D should be country-specific so that the unique conditions of each country are kept in mind while developing new technology. A shift is needed in the perspective of R and D efforts so that the macro environment is not ignored. In this respect, the need for interaction between scientists and social scientists and the need to rank R and D policies with national development objectives was emphasized.

The conference also stressed the importance of interaction between the innovators of technology and the users of technology. The view that users are passive was contested and it was argued that a great deal of R and D work is being initiated from the user environment which existing R and D institutions in many countries have failed to capture. R and D programs should be interactive; if they are, then any potential problems with new technology can be detected early before much damage is done.

It was suggested that ways and means should be devised to make R and D institutions more responsive to their clients rather than only their own criterion of scientific merit within the institutions. There was a considerable amount of wastage of both financial and human resources in R and D institutions of many countries which should be checked by some sort of monitoring system. R and D institutions should not be allowed to remain too removed from actual users and should be regularly assessed by their performance.

Among the new themes discussed in the conference was the need to take a dynamic view of the concept of appropriate technology. This would involve, firstly, a more dynamic definition of appropriate technology where efficiency is built into the definition right at the beginning so that undue controversy about a trade-off between efficiency and appropriateness can be avoided. Technologies which are appropriate in many respects may still be undesirable if they fail to generate adequate incomes for their users, this would be particularly true in very low income countries. The examples on paddy husking techniques from the Bangladesh study on rural industries highlighted this point very well. The traditional paddy husking technique as embodied in the dhenki was appropriate in many senses, it employed more labor, most of whom were women from very low income families, it is produced with local material, has a higher value added per unit of capital and turns out a more nutritious variety of rice. In contrast, the relatively modern paddy husking technique, as embodied in the huller mills, was labor displacing, had an adverse impact on income distribution, was manufactured from imported materials and made a less efficient use of capital. However, the unit costs of these mills were eight to twelve times lower than that of the dhenki and as a result incomes generated were much higher. Consequently, in a dynamic sense, the dhenki was perhaps, on balance, inappropriate technology since it condemned its users to low incomes. Here the appropriate response is to either try and upgrade the traditional technology or adopt the more efficient technique but try to minimize its adverse effects.

In general, it needs to be kept in mind that appropriate technology is a dynamic concept, the same technique can be appropriate in one country while being inappropriate in another (e.g. the axial flow thresher which was considered appropriate in labor scarce Thailand and inappropriate in labor abundant Philippines) and the same technique can be appropriate in the same country in one period and inappropriate in another (once again the axial flow thresher is an example, with the land-man ratio finally starting to fall in Thailand, the thresher may lose its appropriateness). With development of resources and human capital, new techniques become appropriate over time. Even very sophisticated techniques, if properly combined with more traditional technology, can be appropriate right at the beginning.

The dynamic view of appropriate technology can be extended beyond the question of definition to encompass the perspective of accumulation of technological capability over time. This was another important theme stressed at the conference. The choice of technique by micro-units is only the beginning of the process, the subsequent absorption and adaptation of the technique is an important issue. Even if the initial choice is inappropriate there could be a scope to modify the technology over time and

make it more appropriate. The tapioca pelletizing industry in Thailand provides evidence on this. The initial technology in the form of the press came from abroad in the mid-sixties but as exports of tapioca pellets increased dramatically, many small scale local factories mushroomed and Thai machinery shops started copying the imported press. Subsequent adaptations and modifications reduced the minimum scale and also the cost to 60% of the imported machines. Locally adopted technology was also more labor using and even allowed a switch from electricity to diesel engines, thus permitting its use in remote rural areas without electricity.

Macro-policies are thus important not only in terms of their impact on the choice of technology but also in terms of the manner in which they influence the size and nature of the domestic adaptive response and the growth of technological capability. Two sets of factors are important here and need to be studied further: the organizational and institutional framework within which adaptive technology choice takes place (this includes things like the extent of satisficing versus maximizing behavior within the firm, whether blue-collar innovations are encouraged, etc.) and the human capacities needed for the technological response (here the educational system would be a crucial variable).

Problems of policy implementation received a lot of attention. In many cases, appropriate policies might have been formulated but were not implemented properly. A number of reasons were suggested. These included lack of information - policy makers are usually interested in quick and sure results, uncertainty about the nature and time-lag of results often discourage policy implementation. Lack of information manifested itself in another form as well. Numerous examples were provided from various countries showing how certain appropriate policies remained ineffective because intended beneficiaries of the policies were unaware of the facilities being offered. In addition, lack of administrative capability in general impeded policy implementation. It was suggested that policy implementation problems should be taken seriously and should be in the forefront when policies are designed in the first place. Prior anticipation of the nature and degree of implementational problems can help in redesigning policies so that less resources are expended on designing policies which are unlikely to be implemented subsequently.

Another important issue emphasized in the conference was the relation between technology choice and the welfare of women. Women were identified as one of the most disadvantaged groups in LDCs, they had restricted access to resources and alternative employment opportunities and very little political voice. It was suggested that the process of designing and implementing technological change in LDCs is often characterized by a lack of

awareness of the needs of women. The failure to identify the specific impact of technological change on women can have serious consequences given the disadvantaged position of this group. Technological change should therefore be sensitive to the special problems and needs of women. Many women, for example, have very little free time after their household work, opportunities should, therefore, be provided to them to pursue income generating activities within the limited time they have. Given the weak social position of women in most LDCs, the importance of social technology whereby women are organized, preferably around an income generating activity, was stressed. In this connection, the experiences of institutions such as the Grameen Bank in Bangladesh were highlighted. Finally, it was emphasized that governments need to make explicit their policies towards gender issues.

The issue to which perhaps the greatest importance was attached in the conference was the question of choice of institutions. It is not only the choice of technologies but also the choice of institutions that was important. Within this broad theme, a number of important issues came up for discussion. These included the role of the non-governmental organizations NGOs. These organizations are playing increasingly important roles in many countries and have been active in a number of areas such as 1) provision of credit to small farmers, landless laborers and women, who are usually the most disadvantaged groups in these societies, and the ones with the least access to formal credit sources, 2) innovation and dissemination of new and appropriate products and techniques, 3) development of indigenous technical capabilities of the rural poor and implementing certain service delivery systems on behalf of the public sector (in Bangladesh where the public health system is underdeveloped and inefficient, an NGO was used in a highly successful scheme of delivering oral-rehydration methods to address cholera problems in rural areas). There were at least two important reasons why these organizations tended to be more efficient in certain respects than public sector agencies: firstly, they are not subject to the same political economy problems which public sector agencies are subjected to, they represent different groups and are not subjected to the political economy pressures of the government; secondly, they are smaller and hence less bureaucratic. However, although these organizations have played and will continue to play useful roles in these countries, they are at best a complement to the government and cannot be a substitute for it. Even in countries where NGOs are quite active such as Bangladesh, only a very tiny fraction of investment resources pass through their hands. Moreover, NGOs lack real hard-core R and D capabilities. There is no substitute for efficient public sector institutions and the success of the NGOs should not, in any way, preclude thinking about ways and means of improving public sector efficiency.

Other institutional mechanisms emphasized in the conference

included institutions for dissemination of new technology particularly to the small-scale enterprises, it was pointed out that the links between the public and private sector research institutes and the small-scale enterprises are usually the weakest and these need to be strengthened. Institutional innovations were also needed to get credit to people who are very poor and who do not have the normal assets to be able to borrow.

The importance of rural infrastructure development was highlighted. In this connection an important question was the institutional mechanism needed to get the investment resources to the rural areas without any leakage en route. Decentralization was advocated as an option. It was suggested that part of the public sector's authority should be developed to local governments who should be given block grants and the local people should then decide what kind of infrastructural investment is best for them. An important challenge there would be to ensure that vested interests at the local level do not replace vested interests at the national level and preempt the resources.

Finally, the importance of developing institutions to permit control over production by deprived groups was stressed. Who owns the modern rice mill or who owns the shallow tube-well is the important issue. Institutional changes which have occurred with respect to ownership of irrigation techniques in Bangladesh were cited in this context. There, the relatively advanced shallow tube wells had much to commend themselves in terms of efficiency but their appropriateness was in question since the benefits hitherto had gone disproportionately to the richer farmers. In recent years, however, small farmers and even landless laborers have grouped together, often with help from NGOs, to buy and operate these tubewells. The benefits of this efficient technique are now more widespread and its claims to be an appropriate technique have been substantially enhanced. This example led to an important conclusion: the appropriateness of a technique does not always depend on the technique per se but also on who owns it. Choice of institutions was an important as choice of technology.

In summary, therefore, the conference raised a wide array of important issues and generated a number of useful suggestions. The relevance of macro-policies in influencing choice of technique was confirmed once again and so was the validity of the initial classification. However, a number of new areas for future study were also highlighted, the choice of institutions and problems of policy implementation being particularly important.

Syed Akhtar Mahmood  
April 1988

Conference on "Implications of Technology Choice  
on Economic Development"

## EVALUATION FORM

- 1 Country represented \_\_\_\_\_
- 2 Nationality \_\_\_\_\_
- 3 Type of organization
- a  Government ministry
- b  Parastatal
- c  Bank or financial institution
- d  Corporation
- e  Small enterprise
- f  Nongovernmental development organization
- g  Cooperative or trade association
- h  University or research institute
- i  Consulting firm
- j  Media
- k  Other (specify) \_\_\_\_\_
- 4 Which sessions did you attend? (tick off)
- a NGO colloquium \_\_\_\_\_
- b Media colloquium \_\_\_\_\_
- c Keynote address and Liedholm paper \_\_\_\_\_
- d Case studies for Kenya, Tanzania, and Zaire \_\_\_\_\_
- e ATI case studies \_\_\_\_\_
- f Zimbabwe and Nigerian case studies \_\_\_\_\_
- g Discussion group, first afternoon \_\_\_\_\_
- h Discussion group, second afternoon \_\_\_\_\_
- i Discussion group, third morning \_\_\_\_\_
- j Final plenary session, third afternoon \_\_\_\_\_
- 5 Which discussion group(s) did you join?
- a Science and technology policy and research \_\_\_\_\_
- b Pricing, tax, and subsidization policies \_\_\_\_\_
- c Regulatory controls and trade policies \_\_\_\_\_
- d Banking and credit policies \_\_\_\_\_
- e Public investment and rural development planning \_\_\_\_\_
- 6 What did you expect to gain from the conference? (on a scale of 1 to 5, with 5 being a high priority and 1 a low priority)
- a An understanding of how macro-policies affect the potential for adoption of appropriate technologies \_\_\_\_\_
- b Suggestions on how to influence the formulation and modification of macro-policies \_\_\_\_\_
- c Identification of specific appropriate technologies that you can implement \_\_\_\_\_
- d Information on dissemination strategies for transferring technologies to poor people \_\_\_\_\_
- e Ideas for research and development relating to technologies \_\_\_\_\_
- f Methods for social science research on the effects of technology choice \_\_\_\_\_
- g Professional contacts \_\_\_\_\_
- h Other (specify) \_\_\_\_\_

7 How well were your expectations for the conference met (on a scale of 1 to 5, with 5 = completely, 1 = minimally)

- a An understanding of how macro-policies affect the potential for adoption of appropriate technologies \_\_\_\_\_
- b Suggestions on how to influence the formulation and modification of macro-policies \_\_\_\_\_
- c Identification of specific appropriate technologies that you can implement \_\_\_\_\_
- d Information on dissemination strategies for transferring technologies to poor people \_\_\_\_\_
- e Ideas for research and development relating to technologies \_\_\_\_\_
- f Methods for social science research on the effects of technology choice \_\_\_\_\_
- g Professional contacts \_\_\_\_\_
- h Other (specify) \_\_\_\_\_

8 What did you think the strongest points of the conference were? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9 What did you think the weakest points of the conference were? Were there gaps in coverage? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10 ATI is planning similar conferences for Latin America/Caribbean and the Indian subcontinent, with case studies prepared for those regions. What suggestions would you make for the organization, format, or scope of these conferences as a result of your impressions of this one? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11 Was the length of the conference too short, about right, or too long for your purposes? \_\_\_\_\_

12 How would you rate the various sessions? (on a scale of 1 to 5, with 5 being the highest)

- a Keynote address \_\_\_\_\_
- b Liedholm paper \_\_\_\_\_
- c Tanzania case study \_\_\_\_\_
- d Kenya case study \_\_\_\_\_
- e James paper \_\_\_\_\_
- f Zimbabwe case study \_\_\_\_\_
- g Nigerian case study \_\_\_\_\_
- h ATI case studies \_\_\_\_\_
- i Plenary reports on discussion groups \_\_\_\_\_

- 13 a Was the size of the discussion groups too small, about right, or too large? \_\_\_\_\_
- b Was the focus of the discussion groups too narrow, about right, or too broad? \_\_\_\_\_
- c Overall, how useful were the discussion groups? (on a scale of 1 to 5, with 5 being the highest) \_\_\_\_\_

14 Do you feel that the mixture of participants selected included a sufficient range of skills and experience? If not, how would you have changed the representation? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

15 How do you plan to follow up on what you have gained from the conference? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

16 What suggestions do you have as to how ATI should follow up on this conference

a in your country \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

b in the Africa region \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

17 How would you rate the conference facilities? (on a scale of 1 to 5, with 1 = poor, 3 = satisfactory, and 5 = excellent)

- a Conference organization and management \_\_\_\_\_
- b Travel arrangements \_\_\_\_\_
- c Hotel accommodations \_\_\_\_\_
- d Conference meals \_\_\_\_\_
- e Conference rooms \_\_\_\_\_

Comments on these facilities \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12 On a scale of 1 to 10, with 10 being the highest score, what is your overall impression of the conference? \_\_\_\_\_

## **FROM EFFECTIVENESS TO EFFICIENCY: THE CHALLENGE OF SCALE IN ASSISTING RURAL WOMEN PRE-ENTREPRENEURS**

By Suzanne Kindervatter  
OEF Director of Technical Services

### **I. OVERVIEW**

In rural areas of Central America, women's increasing economic responsibilities and low compensation necessitate an increased focus on women's economic activities, as a means to contribute to basic family needs as well as overall rural productivity. Since 1984, OEF has carried out a regional program to enable poor rural women to develop micro or small enterprises in Costa Rica, El Salvador, and Honduras. The program has been funded by a mix of AID/Washington, AID/Mission, and private funds.

This year OEF commissioned an extensive review of its Central American program, which included a study of reports and evaluations of five individual projects, interviews with staff in the field, OEF headquarters, and local organizations familiar with the program, and survey research of 240 enterprises involving 325 women. The learnings from this effort have been incredibly rich, and OEF International is presently translating findings into a revised program strategy.

Overall, the review demonstrates that OEF's small enterprise development methodology is effective for assisting most poor women to expand rural-based productive or service activities into viable enterprises, except for those with exceptionally dire situations.<sup>1</sup> At the same time, the review emphasizes that OEF is not efficient, costs are too high and the number of clients too low.

Is assisting rural women pre-entrepreneurs simply too expensive, or can such a program be cost-competitive with others that target less marginal populations and existing enterprises? This paper focuses on that issue.

1 See Section III/A for discussion of this population.

## **II. CHEESE, PIGS, AND BAKERIES: THE CENTRAL AMERICAN PROGRAM IN BRIEF**

### **A. Program Objectives**

OEF's goal is the empowerment of women, and its enterprise development program is viewed as a necessary but not sufficient means to that end. Therefore, OEF's program is characterized by the following

#### **OEF's Program Objectives and Methodological Features<sup>2</sup>**

- 1 **To assist poor rural women who are currently economically marginal.**
  - Emphasis on training and skills transfer
  - Participatory methods which build self-confidence, decision-making capacity and basic business skills.
  - Feasibility study and investment plan development serve as a focal point for learning by doing within the training format.
- 2 **To enhance women's income levels through entrepreneurship.**
  - Technology up-grade to increase the profitability of existing women's businesses.
  - Credit is made available for fixed capital and working capital, start-up and existing businesses.
- 3 **To increase women's economic opportunities**
  - Where women had previous skills without operating a business OEF engages in business start-up assistance.
  - Where few economic opportunities exist, OEF helps to develop technical packages for viable enterprises.
  - Women are encouraged to pursue non-traditional activities which add value to the local economy.
- 4 **To increase women's access to institutions:**
  - Credit is provided in coordination with local banks
  - Technical support is coordinated with other existing sources of technical assistance

2 Berenbach, Shari, "Assisting Women Entrepreneurs Among Central America's Rural Poor OEF/International's Small Enterprise Development Experience in Central America," May 1988, p. 24.

## **B. Clients**

In the three program countries, OEF has assisted about 600 rural women. The survey identified these profiles:

<u>Profile of Women Assisted</u>	<u>Profile of Businesses Assisted</u>
Age 14-64	47% Food Transformation
25% Heads of households	25% Small-scale livestock
14% Illiterate	13% Agriculture
28% Lack basic numeracy	15% Artisan or commerce
79% Never previously received credit	

Also, according to the study (Berenbach, p 22).

A significant finding from the OEF experience is that poor rural women can successfully engage in micro-enterprises. An underlying assumption of the AID-funded PISCES Phase I, PISCES Phase II, and ARIES studies has been that the most appropriate type of program for the very poor are community development and/or group production activities. Ironically, such activities generate very little income for the very people who need this income most. The OEF experience does indicate that there is a minimum threshold of household resources necessary for the success of micro-enterprise activities. However, that threshold is much lower than many would have anticipated.

## **C. Small Enterprise Development Methodology**

OEF International's enterprise development methodology has evolved during its years of implementation. Initially, the focus was on group enterprises using loan guarantees. More recently, OEF has expanded its approach to include individual microenterprises and revolving loan funds. Differences at each program site are developing in response to the specific economic and institutional environment and the varying performance of clients. Despite these variations, a core methodology has emerged through field experience which is grounded in four key components: Organization, Training, Credit, and Technical Support.

### **Integrated Financial and Nonfinancial Assistance**

- **1. Organization**  
Women are formed into groups for training and mutual support. Camaraderie and an increased sense of personal efficacy are developed around training activities that cover group building, goal setting, resource mobilizing, and problem-solving. In some cases, the groups later serve as a valuable contributor to the women's businesses, in terms of collective marketing or advocacy.
- **2. Training in Business Skills**  
OEF places strong emphasis on women being business decision-makers, as a means to foster capabilities in analysis, planning, and management. OEF's "Appropriate Business Skills" training, based on three manuals with participatory activities includes

- u. *Doing a Feasibility Study* - 7 steps 1 why do a feasibility study, 2 choose a product or service to sell 3 find out if people will buy it, 4 determine how the business will operate, 5 calculate business expenses, 6 estimate sales income, and 7 decide is this business a good idea
- b *Marketing Strategy Training Activities for Entrepreneurs* - Explores product, price, distribution, promotion and packaging, and enables women to develop marketing plans
- c *Management Made Simple* Includes business structure and organization the "how-to" of financial and nonfinancial record-keeping, and business planning
- **3. Credit**  
OEF works in partnership with local commercial banks, thus opening bank doors to women previously excluded from commercial lending OEF trains women to understand the advantages and responsibilities of credit and the need to balance credit requests with realistic repayment terms OEF and partner banks have joint loan committees to process applications, banks disburse the loans The three forms of OEF-bank partnership are bank administration of a revolving loan fund, bank guarantee (in which bank exposure increases over time), and bank referrals (in sites where banks loan to small borrowers)
- **4. Technical Support**  
Assistance in up-grading technologies begins during the business skills training Since OEF clients are either expanding a marginal economic activity or developing a new enterprise, the introduction of new technologies is usually vital to business performance In some cases, OEF staff or contractors are responsible for technical extension, and in others, OEF serves as a broker with local technical assistance agencies

OEF's methodology has grown in response to the needs of rural women pre-entrepreneurs and provides a mix of services that enables businesses to start and to grow The next section examines the extent to which the methodology has been effective in the Central American context

### **III. PROGRAM EFFECTIVENESS**

#### **A. Business Viability and Sustainability**

In the survey conducted as part of OEF's program review, 77% of the women who participated in OEF's initial business skills training currently operate viable enterprises, the majority of which are new and started as a result of OEF's assistance 55% have operated for two years or less and thus are in the early phases of business formation Business performance has varied significantly amongst the three countries, as a factor of different levels of poverty; the exact mix of services provided, particularly credit, the number of years of enterprise operation; the performance of project staff; the client selection process, and structural barriers.

These differences were particularly marked in the attrition rates amongst countries following the initial business skills training: 39% in Honduras, 17% in Costa Rica, and 3% in El Salvador The high rate in Honduras is related to the need for a "minimum threshold of household resources necessary for the success of micro-enterprise activities" noted earlier in this paper (see Section II/B) In Honduras, OEF works in the northeast in an area of extreme poverty and a relatively undynamic rural economy A significant portion of women

who attended OEF's initial training lacked the needed physical and psychological supports for enterprise development. These were women with the fewest skills, poorest asset base, no land, greatest number of children dependents, and lack of family support, whose demands on time and resources were already stretched to the maximum. In contrast, the Costa Rica program benefitted from its proximity to the nation's capital, a relatively more educated beneficiary population, and a more dynamic economic environment. And in El Salvador, despite operating in zones affected by the protracted conflict, the program included a smaller number of enterprise start-ups, had a higher percentage of businesses in operation over five years, and had a higher percentage receiving credit.

## **B. Economic, Social, and Institutional Gains**

The study of OEF's Central America program looked at a flow of benefits depicted in Attachment A. Though differences among sites were significant in some cases, the chart below presents the aggregated benefits for the businesses in operation.

### **Program Benefits**

#### **Business and Economic Indicators**

##### **Improved Management Practice:**

80% know how to calculate costs

72% base their pricing on costs

60% adopted new marketing strategies

##### **Business Performance:**

88% generate a profit

68% have increased sales

45% have increased sales by 100% or more

##### **Economic Impact:**

67% have doubled their assets

91% some increase in assets

75% employ family members

28% employ paid workers

41% reinvested earnings

#### **Social Benefits**

##### **Beneficiary and Family Impact**

88% now participate in major household decisions

88% of households increased their incomes

82% of women spend their income on food

57% of women spend their income on clothing

35% of women spend their income on home improvements

50% of women spend their income on better education opportunities

While it is not impossible to quantify institutional benefits, OEF has influenced local institutions--particularly banks and technical support organizations--and has assisted the formation of local affiliates. These broader institutional effects represent indirect benefits that will extend beyond the life of OEF's program.

#### **IV. COST**

On a cost per participant basis, OEF costs have been high. Examining several individual projects, the costs were: Women in Business Project/Honduras and Costa Rica--\$4,070; Displaced Women Project/El Salvador--\$4,601; and Pig Project/Honduras--\$6,603. When isolating field-based recurrent operating expenses, costs for the Women in Business Project were \$1,164 per client.

Generally, costs have been high due to OEF's investment in the development of its enterprise development methodology, as well as direct field implementation. Principal factors have included: costs associated with developing methodologies, field testing training materials, supporting local institution building, Washington based management and oversight costs, a field staffing pattern which included a disproportionate share of senior personnel, and, the incorporation of some non-essential program features into OEF's small enterprise programs.

In a follow-on project in Costa Rica that builds upon OEF's now "installed capability" and alters particular operating and management structures, cost per participant will be about \$530. This compares favorably with other programs. For example, ADAPTE, a Cost Rican organization affiliated with the international PVO IIDL, provides credit, training, and technical assistance for \$809 per client (Berenbach, p. 60). While other programs operate for less, OEF's focus on rural women and business start-ups justifies a somewhat higher cost structure, though not as high as in the past.

#### **V. UPGRADING EFFECTIVENESS AND EFFICIENCY**

The chart in Attachment B adapts David Korten's program development framework to the field of small enterprise development. In addition to Korten's "3 E's"--Effectiveness, Efficiency, and Expansion--"Exploration" has been added as an initial stage in which an organization grapples with why it is becoming involved in enterprise development and what its niche in the field will be.

Examining OEF's experience, the exploration phase occurred over an extended period in the late seventies/early eighties, since this represented a major transition for the organization. In its work over the past five years in Central America as well as other parts of the world, OEF has achieved general effectiveness in its enterprise development program. However, outcomes need to become more consistent and profit margins higher. And, in terms of efficiency, OEF needs to reach more clients for a lower cost.

OEF is presently modifying its program in Central America to make the crucial transition from effectiveness to efficiency. These are the major areas in which adjustments are being made:

1. Staffing. Fewer senior personnel on-site, a better extension capability with clearer accountability for client performance, "barefoot accountants" to serve as local resources for women assisted, on-line computerized enterprise monitoring system.

2. Client Selection. A more balanced portfolio of "high risk" and "less high risk" women, with a clearer determination of the "minimal threshold of household support" needed for successful enterprise development; pilot activities for women who do not meet this requirement, greater geographic concentration

3. Businesses Assisted. Greater mix of new and existing businesses, focus on a more limited range of business sectors which show economic promise and development of top-to-bottom "tech-paks" for these sectors, more careful policy analysis to identify obstacles, such as lack of rights to land ownership, which stymie business development

4. Training. Shorter front-end training, prior to obtaining credit,

5. Individuals and Groups: More careful assessment of economic return to each woman in a group enterprise, support of individual businesses, and promotion of groups for procurement, marketing, and advocacy

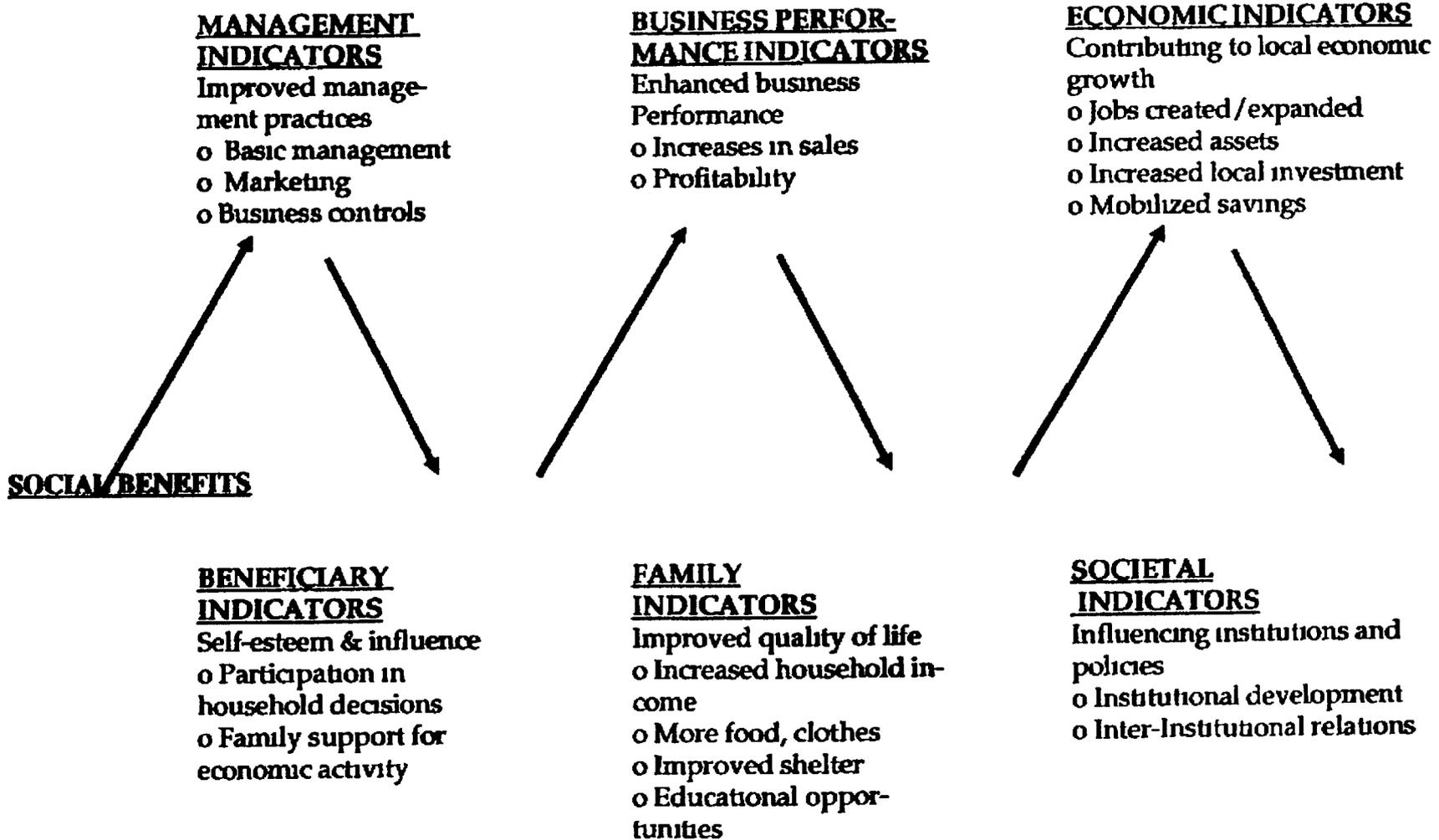
6. Credit: Increase in percentage of clients utilizing credit, better screening of borrowers, with a "debt capacity worksheet", decrease in size of average loan, with shorter repayment period.

7. Expanded Local Funding Base. Selling training services, increasing the capabilities of affiliates in resource mobilization; charging clients fees for services

By implementing changes in these areas, OEF believes that poor rural women can be enabled to start or expand businesses and at a reasonable cost.

# THE OEF CENTRAL AMERICAN SMALL ENTERPRISE DEVELOPMENT FRAMEWORK

## BUSINESS/ECONOMIC BENEFITS



## Program Evolution: Adaptation to Korten's 3-E Model

### Stage 1 Exploration

Define goals, objectives, and means.

#### VALUE FOCUS

Examine goals in relation to participant perceived needs  
 Clarifying objectives and means for realizing these.  
 Trial and error, choices, ambivalence  
 Community Development/Income Generation  
 Assessing skill needs, capital needs, data needs for project success

'Sifting through...until you are clear about what you are trying to do'

### Stage 2 Effectiveness

Figuring out how to do it.

#### METHODS FOCUS

Appropriate mix of TA/Credit/Training.  
 Client Selection.  
 Group/Individual.  
 Rural/Urban.  
 Direct or indirect credit.  
 Basic operating procedures.

'Testing until you define a methodology which works'

### Stage 3 Efficiency

Getting regular results while reaching a reasonable scale of operations.

#### MANAGEMENT FOCUS

Staff training  
 Monitoring Systems.  
 Client/agent ratios.  
 Management Information Systems.  
 Refining policies and admin. systems  
 Packaging training materials

'Refining and establishing an efficient system which can be used by others'

### Stage 4 Expansion

Getting others to do it.

#### INTER-INSTITUTIONAL FOCUS

Strengthening local NGOs.  
 Sustainability  
 PVO/NGO relations.  
 Wholesale and secondary credit markets.  
 Dissemination to secondary cities.  
 Training of Trainers.

'Accomplishing broader inter-institutional impact'

ATTACHMENT B

\*SOURCE Berenbach, Shan, "Assisting Women Entrepreneurs Among Central America's Rural Poor OEF/International's Small Enterprise Development Experience in Central America," May, 1988, p 67

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## Technical Assistance and Training: Bringing MBA Training to the Barrio

### A Discussion Paper Presented To The Small Enterprise Promotion Network

October 13, 1988

New York, NY

by

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The views and interpretations expressed in this paper are those of the author and should not be attributed to the Council For International Development.

Technical Assistance and Training:  
Bringing the MBA to the Barrio

Fernando Cruz-Villalba

Introduction

The theme of United States of North America (USA) sponsored development financing during the past eight years: the "private sector approach" has impacted on the practices of what is done in the field. Fortunately or not, the emphasis has been on that elusive vector called sustainability of the developing institutions that are either created or expanded to assist the small scale entrepreneur in developing countries. Inter alia, social programs are encouraged to operate more with financing from the private sector and less with public funds. In the international development arena, economic forces are expected to guide market forces in determining the kinds of goods and services that are to be produced; a level playing field is assumed.

Fortunately, the empirical knowledge of institution building is based on the models of successful profit making organizations whose leaders are trained in the management and business schools of throughout the First world. As with all major fields of study, today's technocrats are endowed with a vast array of analytical tools that enable them to understand the market environment better than their forefathers ever could. Much has been learned about the human resources that contribute to progress and growth in the firm.

Unfortunately, this information and much less the skills that accompany it are not reaching the Third World managers responsible for the implementation of "private sector" approaches that donor agencies are financing. In fact, we have reached a point of administrative incapacity bounded by external and internal factors that no management theory can possibly accommodate. The result is that most intermediary organizations that work with the small enterprise are operating under extreme disadvantages. (Lindenberg, Crosby, 1981; Bryant, 1986).

Training the managers and field extension staff of private sector supported non-profit organizations to cope with the external and internal factors is the challenge facing small and medium scale enterprises (SME) as well as micro enterprise (ME) practitioners. There are ways of adapting methodologies to fit the needs of managers by de-mystifying the business administration curricula and interpreting the more significant skills, then creatively implementing selected strategies.

This discussion paper presents some of the attempts made in the Latin American and Caribbean context to meet the challenge of achieving excellence among the SME practitioners and counterparts. I will address the strategies used in bridging the gap between the Masters in Business Administration (MBA) training of the North and the barrio practitioners that work in the South.

### Issues of Credibility

Management is more art than science. Despite all the quantitative learning that goes on in today's business schools the skills that are most significant are those that discover the human value in a work situation and somehow turn that value into productivity. Malcom McNair, a case study professor at Harvard's Advanced Management Program welcomed a new class by stating that "the principal value to you of this training at the Business School will lie in the power that you will develop to analyze a situation, to formulate a program of action, and to carry that program into effect through the people in your organization or in your community." (McNair, 1954)

The "barrio practitioner", herein referred to as a young and dynamic promoter responsible for the outreach work of SME projects, has the innate ability to develop power of analysis, formulate plans of action, and implement programs with borrowers and other community leaders. He/she is a person that lacks the credibility that a sheepskin may confer, but is every bit as responsible for selecting a potential entrepreneur from the many that are not, and in a smaller world exhibits the same characteristics as a budding CEO.

The differences are enormous in terms of schooling, access to information, readings, technical data, luxury of libraries and study time. The environment is appreciably poorer, but the human spirit is not. And this is one of the issues that distinguish the credible from the not so credible.

### The Target Audience

For the purposes of this discussion, I will focus on the training needs of two kinds of audiences: (1) the manager of the SME organization; and (2) the extension officer (promoter) who interfaces with the entrepreneur. I purposely exclude the borrower (client) because the treatment is different since his/her needs may require technical manufacturing expertise as well as administrative skills.

#### Managers

Managers that work in small enterprise organizations have

the same tasks as those that work in banks, cooperatives or other financial institutions. The difference is the client system they serve and the fact that most organizations are non-profit organizations dependent upon donor assistance. The older organizations have graduated and a few can make the envious claim of self sufficiency.

The educational level of these managers vary. For the most part they have college degrees or equivalent educational backgrounds. Some are entrepreneurs themselves who have worked into a position of management. For the majority of new entrants, the experience in managing people and resources is weak. Their schooling is usually a combination of learning from others, reading instant management books, and formal training offered by the donor agency or intermediary organization.

### Promoters

The promoters tend to have high school degrees, some college level education, while many are self-educated entrepreneurs. Depending on the country and the SME program, the promoters self select. Many are have risen within the ranks of the organization beginning as credit clerks or administrative assistants. There is a high sense of community service among the promoter. In Jamaica, (NDF/J) the educational level was by design made high so as to bring credibility to the function of technical assistance; in Belize (NDF/B) the educational level was high school because that is what was available. In Honduras (FUNADEH) the educational level was mixed, and promoters with engineering degrees were admitted to the ranks. In El Salvador (COMCORDE) the educational level also varied, tending towards a college graduate or equivalent. The war, which coincidentally occurs during the same past eight years that private sector approaches become the theme, has contributed to the loss of the talented Salvadoreans that would otherwise be around to train.

Given the recent recognition of SME development practice, the data are not available on the profile of the promoter. Often they must be trained to understand the nature of the client system and what the work really involves. The tendency has been to imitate the work of an agriculture extension worker, or a social worker. In fact, many promoters have this public sector background. The average age of a promoter is 28 years, a little over half are males. Women who have remained with the programs over the two year period have succeeded in their work and are considered more effective than men in similar situations.

### The MBA Curriculum

One of the top management schools in the USA offers courses in what can be described as the core curriculum: Introduction to management science; problem solving by computer; mathematical

programming, decision analysis, applied statistics, operations research, communication, which includes writing and speaking skills, organizational studies that focus on behavioral science research methods, psychology; interpersonal dynamics; technological innovation in management; financial management; taxation and business; corporate financing; accounting in all its derivatives, planning and control systems; management information systems, simulations; data structures and databases; government and business relations; AIDS: scientific challenge and human challenge, industrial relations; collective bargaining; marketing, consumer and trade promotions; corporate strategy and policy and special courses in international trade and finance (MIT, Sloan School, Bulletin 1988-89).

The traditional learning mode in a business school is the case study. A well documented real situation that emphasizes problem solving is the source material which is read individually, studied in a work group and discussed in class. The class discussion is lead by someone who is knowledgeable of the subject matter, has first hand experience with the writing of the case and can embellish any point that may be of interest to the learner.

The only problem in adapting this learning technique to the Third World setting of the SME manager and promoter is that there a very few cases written that meet the standards of a sound case study. Even fewer, if any, involving a credit intermediary PVO.

So how does one bring the MBA to the Barrio?

### Creative Adaptations

My own experience in training without the fancy tools that one gets used to is to simply create the material and the environment for learning. Here the objective is to sensitize those that need it to the values that govern their work. Extract from their own experiences and those of the clients being served, the "cases" that best exemplify a learning objectives. Add the didactic material from other sources readily available. The recent ARIES project has produced a lot of fresh material, some re-runs, but unfortunately it has remained in the archives of the producers. Soon it will be available for local consumption, we are told.

The two target groups have distinct learning needs. Managers must focus on decision making, board-donor relationships, membership expansion, fundraising, personnel management; accounting, evaluation methodology; and most importantly strategic planning and problem solving.

Promoters need to understand the nature of their work. It is amazing how many think of themselves as loan collectors. For

many the role develops into one of power which they never imagined having over their peers. The ability to decide whether or not someone gets a loan is powerful. For this reason, I always begin a training session with a module on values clarification; a chance to get to get the promoters to learn about themselves and for others to know them.

The group is the main training tool. Since didactic material is often scarce, the experiences every participant brings to the learning process is considered valuable. During the values clarification module, some issues of discrimination as to gender and class are examined. This then becomes a building block for understanding the roles they must play and how behavior can affect their success. Traditional educational practices in Latin America and Caribbean (LAC) countries seldom examine the value system that operates in their community or culture. Norms and values are discussed and this leads into the kinds of operational regulations that as promoters they must be aware of.

### The Process

Simulations are both fun and rich in training. For this part of the training, there are many exercises that can be easily adapted to the objectives of the group. Collaboration is one. Here the intention is to build group cohesion among the promoters. One of the many examples is the tower construction exercise. Construction paper, glue, scissors, tape, markers rulers, paper clips and any thing immediately available is used. The instruction to each group of 3 - 5 participants is to build within a time period of one hour a paper structure that meets three criteria: Height, strength, beauty. One member, if the group is large enough, acts as observer. After the hour is finished, a group discussion on the merits of each structure is held. Each must argue its case and finally a panel of "judges", usually a Board member comes in to award the prize to the winner.

The key of the training lies on the richness of the discussion. Feelings, use of time, use of resources, group decision making collaboration, exclusion, inclusion, problem solving patterns are openly examined.

### The Content

The training period typically lasts four days for the first module (process and behavioral observations); followed by courses on entrepreneurship, basic accounting, client selection, financing, marketing, competition, loan collection, banking relationships, strategic planning, loan processing and the PVOs rules and regulations for administering the program.

After a four to six month period the training is completed.

Each session last four days and is given over a three to four month period. Between training workshops, the promoters and managers work at their assigned tasks. The reason for this structure is that the PVOs must pay the salary of the trainee while they are being trained; the assimilation period is indeed long, the ongoing work of the PVO cannot be interrupted

Are trainees (participants) able to learn from the "MBA approach?"

The fact that one markets the course as a learning experience like the one offered in the industrialized country business schools with a similar methodology, enhances the prestige of the training experience among the participants. The curriculum has been modified, de-mystified and brought to the level where a high school graduate can learn skills that will serve him/her in their work and beyond.

### Sustainability

Training is an investment in the human resources of a nation and in the case of the SME practice, of the community in which it operates. Donor agencies are aware of this investment, however, when the issue of the sustainability of both the operations and the financial survival of the PVO is challenged, a harder answer is sought, notwithstanding the aforementioned theme of private sector, pay your own way.

Once the staff have been prepared to perform certain tasks, the cost of their services must be passed on to the final user. In this case the borrower. Just as SME borrowers are indifferent to interest rates, provided they can pay an affordable amount per month on the loan, they can be indifferent to payments of technical assistance provided by the credit intermediary institution. The better approach seems to be one whereby the subsidy that accompanies the donor investment can be structured in such a manner as to mask the direct charge for technical assistance to the borrower. This is accomplished by extending the terms of loan re-payment, letting the borrower know that he is paying for that assistance.

A quality product has buyers, and the key is to provide sound technical assistance (advice) that meets the needs of the borrower. As discussed in the content of the training curriculum, marketing the value, as opposed to exacting the cost of the training, contributes to the recovery of financial resources and hopefully to sustainability.



SEEKING TO BALANCE EFFECTIVENESS, EFFICIENCY AND  
AFFORDABILITY IN SMALL ENTERPRISE MANAGEMENT  
EXTENSION THE CASE OF CRS/TUNISIA

*SEEP Conference on Non-financial Assistance*

Lawrence Yanovitch  
Catholic Relief Services - New York  
31 September 1988

#### ACKNOWLEDGEMENT

I would like to note that the ideas presented in this paper are the fruit of the reflection of many CRS employees who have struggled with the design and policy issues related to the program. In this regard, the Agency is particularly indebted to David Holdridge who conceived the initial design of the program and Ahmed Gdoura who is the program director. The general management efforts of Joseph Curtin, Daly Belgasmi and Rick Bell have been critical to a successful program implementation as well as the efforts of all of the CRS/Tunisia and UTICA staff.

Finally, the Agency is grateful to Dr. Cheryl Lassen who, in her constructively critical approach to the evaluation of the program, has been exceptionally helpful in assisting CRS to understand better the nature of the program and its relevance to CRS programming.

## I. INTRODUCTION

In January 1984, Catholic Relief Services (CRS) began in Tunisia the implementation of its first management extension program. Operating out of Tunis, the program has targeted local small scale manufacturers in light industry. During the evolution of CRS' Small Enterprise Development (SED) initiative, this program has proven to be one of our most challenging. It has demanded that we scrutinize some of our basic assumptions about development and establish a technical competency in an area outside the usual purview of our operations.

Implementing a management extension program that targets small scale manufacturers who are well above the poverty line has presented a policy concern for CRS. The vast majority of CRS' SED programs target the poorest of entrepreneurs. CRS/Tunisia, however, viewed these enterprises as potential catalysts which can spur community employment and in the process help to develop the industrial base of the Tunisian economy. Working from this development assumption and having CRS Headquarter's approval to develop a program on an experimental basis, CRS/Tunisia and its local partner UTICA\* set out with support from AID/Tunisia to test methods for providing management extension services to small scale manufacturers.

Since employment opportunities and all other socioeconomic benefits depend on the viability of the enterprise, CRS/Tunisia and UTICA were principally concerned with developing the ability of the targeted manufacturers to increase the productivity and profitability of their enterprises. Hence, the effectiveness of the extension services in achieving this kind of impact became the dominant concern of the program. In many ways, this approach proved fruitful. A recent evaluation of the program indicated that CRS/Tunisia and UTICA were indeed successful in increasing the viability of targeted enterprises and in generating or securing a significant number of jobs. Moreover, participating entrepreneurs perceived the need for the services and were willing to contribute towards their costs.

The program was, however, an experimental venture for both CRS and UTICA. There were thus some flaws in its design. In their focus on effectiveness, CRS/Tunisia and UTICA fell short of developing a rigorous approach to maximizing the

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\* Tunisia Union of Industry, Commerce and Artisanry

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efficiency and affordability of the program's delivery system. Consequently, there are several areas for improvement in the program's design which should be addressed in any consideration of its extension or replication.

This paper will first look at the background and conceptual antecedents which gave rise to the design of the program. It will then look at how the design evolved in the process of the program's implementation. Based on the findings of a recent external evaluation of the program, the paper will then provide a brief analysis addressing the issues of the program's effectiveness, efficiency, and affordability. Finally, the paper will present CRS' view on the role of this kind of assistance in the global SED movement.

## II. THE BACKGROUND

Since the inception of the small enterprise movement, there has been great debate in the PVO community on the value of non-financial assistance. Credit has so dominated the SED programming scene that PVOs have defined any other form of assistance to small enterprises in relation to how it might complement the delivery of "financial" assistance.

Prior to the development of its management extension program four years ago, CRS/Tunisia observed that with many enterprises lack of access to credit is not always the prevailing problem; rather, it is often the lack of adequate management skills and systems which prevents the enterprise from unblocking the internal constraints to its growth. In fact, providing credit to enterprises which are constrained by management inefficiencies can sometimes further compound their problems.

As CRS begins four years later to consolidate its lessons learned in SED, we have concluded that CRS/Tunisia's hunches were essentially correct. Depending on the level of enterprise which a development agency is targeting, the need for management assistance may range from minimal to substantial. Undoubtedly, lack of access to credit is a perennial constraint faced by the underemployed and micro-enterprises operating in the lowest levels of the informal sector. As we ascend to the level of small enterprises, however, management issues become increasingly pressing: a priori, as the size of an enterprise increases the complexity of its operations increases and hence so do its needs for modern management skills and systems. Indeed, access to credit at the small and medium enterprise level can often be seen as a function of good internal financial management and the ability to establish a relationship with a commercial bank.

The experience of CRS/Tunisia and UTICA bears out this theoretical view. Having had its economy subjugated to that of industrial France during a substantial period of its modern history, it is only over the last several decades that Tunisia has begun to build an indigenous industrial sector. Many Tunisian small scale manufacturers were originally traditional traders or artisans who entered the manufacturing sector to capitalize on the opening of economic opportunities as France's colonial presence began to wane. These traders or artisans often excel in their knowledge of their trade or technical skill; yet, they usually lack the exposure to modern management practices which would enable them to address many of their internal constraints to growth.

Observing this pattern of constraints in the Tunisian light industrial sector, CRS/Tunisia conceived of the notion of developing a management extension program which would team up small scale manufacturers with young Tunisian business school graduates. These graduates could then provide relatively low cost advisory services to the small scale manufactures in modern management systems and help the manufacturers to develop their analytical skills to address independently their internal constraints to growth.

CRS/Tunisia thus generated the interest of UTICA in entering into a partnership to develop and implement this program concept. CRS, UTICA and AID provided funding for the program.

Closely linked to the Government of Tunisia, UTICA is the country's national association of industry, commerce and artisanry. UTICA's membership consists of all government registered businesses in Tunisia which totals approximately 7,000. Members are legally required to pay membership fees to UTICA. In turn, UTICA provides indirect services to the enterprises by lobbying with the government and providing various industrial and trade related information. Prior to the management extension program, UTICA did not provide direct services to member enterprises. UTICA thus seemed to be an ideal local partner for implementing this program.

### III. THE EXPERIMENT

The design of the management extension program was structured around several strategic objectives. First, CRS/Tunisia and UTICA were seeking to test, apply and refine an effective methodology to provide on-site management advisory services to local small scale manufacturers --- a methodology that would seek to promote access to credit where needed through the development of good internal financial management practices. Second, they wanted to

establish a local institutional framework within which such a methodology could be exploited to reach ever larger numbers of enterprises. Third, they hoped that the development of such a program and institution would incite local government interest in the constraints of small scale manufactures and in the potential which they have to contribute to the Tunisian economy.

### III.A Phase I

In January 1985, CRS/Tunisia and UTICA thus set forth a two year tactical plan to implement a pilot program, develop a cadre of extension officers, and lay the foundation for the establishment a Tunisian SED institution. Implementation of this strategy constituted Phase I of the management extension program.

During Phase I, CRS/Tunisia and UTICA developed a team to implement a two year pilot program valued at \$311,400. The team was housed at CRS/Tunisia and comprised a program manager, field supervisor, three extension officers and support staff. Since the extension officers had recently graduated from business schools and had had only some private sector experience, it was necessary to train them in the theory and practice of management consulting services. The program manager and various small enterprise management experts from UTICA provided the training over a six month period.

Each extension officer focused on one of three targeted industrial sectors: construction, textiles and mechanical/electrical. Over an eighteen month period, the officers provided management advisory services to 53 enterprises in the Tunis area. These enterprises were selected based on predetermined criteria developed to single out small artisanal manufacturers which were relatively nascent, exhibited high potential for growth and lacked adequate management skills/systems.\* The services were fully subsidized by the program. The estimated cost was \$2,275/enterprise.

Once a client firm was accepted into the program portfolio, the extension officer assigned to the client would conduct a rigorous diagnostic analysis of the firm's opportunities

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\* Over the life of the program, CRS/Tunisia and UTICA have used World Bank definitions for levels of enterprises: Micro enterprises are those which have 1-10 employees and up to DT 100,000 of assets. Small enterprises are those which have 10-30 employees and assets between DT 100,000 and DT 500,000. A medium enterprise had +30 employees and assets between DT 500,000 and DT 1 million. (\$/DT exchange: .7746)

and weaknesses in all of the areas of its operations: general management and business planning, marketing, production scheduling/processes, financial management, worker relations and government regulations. This analysis took generally up to five months.

Based on the diagnostic analysis, the extension officer would then work with the entrepreneur to develop an action plan outlining concrete steps towards increasing the firm's productivity and profitability. Usually, the plans would consist of 5-8 steps. These steps might include, for example, the development of a management information system, conceiving a product development strategy, reorganizing the production lay-out, establishing a quality control system, negotiating favorable credit terms with a bank, developing policies to increase worker satisfaction, etc. Over the remaining eighteen month period, the officer would then assist the entrepreneur implementing or initiating these steps. After the plan was implemented, the entrepreneur would be considered to have "graduated" from the program and there would be no further assistance.

Since the management extension program was the first of its kind in Tunisia, the program team initially encountered skepticism among the entrepreneurs vis-a-vis the intent, value and overall concept of management advisory services. Often relegating enterprise constraints to production problems, these entrepreneurs did not perceive how improved management could increase productivity. Entrepreneurs were also wary about being involved with UTICA given its links to the government. These factors made prospecting potential clients an arduous task for the extension officers. Moreover, the team could not offer credit as a "carrot" to accepting the services in the way that non-financial assistance is traditionally promoted in integrated credit programs.

In the design of the program, CRS/Tunisia and UTICA anticipated these difficulties; as an incentive, they decided that in addition to fully subsidizing the services they would also provide participating entrepreneurs with access to a bonus fund. Bonuses were provided to the entrepreneurs in the form of subsidies for marketing brochures, technological assistance, participation in trade fairs, and for a variety of other services or purchases which would be beyond the normal reach of the entrepreneur. The program team later perceived, however, that the bonus fund was not as necessary to sell the services as they would have thought; the concept of the fund was also antithetical to the whole notion of selecting only those entrepreneurs who would be committed to the purpose of the program.

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During Phase I, this was the basic methodological framework within which the program delivered its services. The aim was effectiveness and thus much was invested in testing and refining the methodology in order to develop a quality service package for participating enterprises. This emphasis on quality produced its rewards. After only two years, the program developed a considerable reputation in Tunisia and was lauded by the Prime Minister.

Such recognition was critical to developing a political environment conducive to the institutionalization of the program. In light of its highly subsidized nature, developing the interest of prominent figures in the local public and private sectors offered the only possibility for assuring its sustainability. To this effect, CRS/Tunisia and UTICA fostered the engagement of the public and private sectors in the purpose and operations of the program through the establishment of a program oversight committee. CRS/Tunisia and UTICA charged the committee with laying the groundwork for establishing a Tunisian SED institution which could sustain the program activities after CRS and AID withdrew their administrative, technical and financial support.

### III.B. Phase II

In January 1987, CRS/Tunisia, UTICA and AID began implementation of Phase II of the program which is now still operative at the time of writing. This phase was scheduled for two years and costed at \$512,300. In Phase II, the cost/enterprise was reduced from \$2,900/enterprise to \$2275/enterprise. The bonus fund was disbanded and participating firms are now required to pay a user fee equal to approximately 12% of the cost of the services.

One of the major achievements of this phase was the institutionalization of the program through the establishment of an independent legal entity known as Comite de Conseil et de Developpement des Petites et Moyennes Enterprises (CCD-PME or "CCD"). CCD was relocated from CRS/Tunisia offices to independent premises and was charged with the implementation of Phase II under the guidance of its Board of Directors. The Board is comprised of many of the former members of the program oversight committee.

In Phase II, CCD expanded the program team from three to five extension officers and from one to two field supervisors. The methodology was streamlined. The diagnostic period was reduced from a five month period to a two-three month period. The steps of the action plan were reduced from 3-5 objectives to 3-4 objectives and the time to

Although their needs are not the same, CCD is delivering the same services to enterprises whether they be micro manufacturers, small manufacturers or mid-sized manufacturers. The evaluators thus suggested that specialized services over a punctual period of one-two months be given larger enterprises and that a more prolonged consultancy covering broader management issues over several months be given the micro manufacturers.

The evaluators also recommended that the format of consultancy be streamlined; that a ceiling for the length of consultancy be established during which only those objectives with the greatest priority are pursued and thus allowing the consultants to double their client load; that consultancy sessions be consolidated from many 1-2 hour periods to several all day periods; that a priority be placed on expanding the scope of services through low-intensity forms of educative consultancy which inform manufacturers about better management and thus provide a filter to attract a purposeful clientele with a high potential to profit from more intensive consultancy services

In order to maximize the efficiency of its employment generation, the evaluators also suggested that CCD give a policy preference to those firms which have the greatest potential to improve or create employment.

Finally, the evaluators recommended that CCD develop a more comprehensive management information system to provide data on program revenues, socioeconomic benefits and cost-efficiency which could provide the basis for measuring the effect of different approaches and for shaping the delivery system in ways that will increase its efficiency.

#### IV.C. Affordability

The evaluators estimated that increasing the efficiency of the consultancy format in the ways described above could reduce cost/enterprise from the rate of \$2,275 in Phase II to a rate of \$725 for small and medium manufacturers and \$1550 for micro manufacturers.

Moreover, the evaluators recommended that CCD set a benchmark for users fees to cover 40% of actual consultancy cost. This could be facilitated through (a) CCD's reducing its free services such as lengthy diagnostics, (b) selecting clients who are willing to pay, (c) measuring the monthly performance of extension officers in the collection of fees, and (d) discontinuing services for those who do not pay.

## V. CONCLUSION

Over the course of the implementation of this program, CRS has confirmed its belief that management extension can provide an effective vehicle for generating growth in the small scale manufacturing sector of developing countries and that fostering such growth can be a viable means for creating employment opportunities at a relatively low cost

If the program model presented here is shaped to balance better the effectiveness, efficiency and affordability of its delivery system, CRS believes that the model offers substantial potential for replication.

For CRS, this program has been most important in helping us to frame our identity in the small enterprise movement. At the outset of this program, we had not yet developed a vision to define clearly our programmatic goals in small enterprise development. Despite the benefits in employment generation, we have since concluded that this program model is not ideally suited to the institutional mandate of CRS to work with the poor of the developing world. The nature of CRS prescribes a more direct link with the poor through the promotion of enterprises more firmly rooted in the informal sector.

We have seen, however, that such a management extension program offers the means to build the manufacturing base of a post-colonial economy and thus help a developing country make the transition from an extractive economy to that of an integrated economy. Clearly, such programs have a significant role to play in the future of the small enterprise movement.

It is thus surprising that the international development community has not seemed to recognize that in addition to the need to realign structures in developing countries to allow capital to flow to small enterprise opportunities, there is a critical need for non-financial assistance to small enterprises. Indeed, it is only through effective management that developing countries will be able to maximize the use of their most scarce resource --- capital. The issue then is to identify the blend of credit and non-financial assistance that is most appropriate to the target group.

Based on this experience, CRS would thus strongly encourage other donor agencies which are principally concerned with economic development to consider the potential that management extension offers developing countries and fill the institutional void that currently seems to exist to meet this often unrecognized need.

implement the action plan was also reduced from eighteen to eight months. In this phase, CCD is providing services to 120 enterprises within a 100 mile radius of Tunis. Larger firms were included in CCD's portfolio with enterprises representing all of the major industrial sectors. Finally, CCD reaches approximately 2,000 enterprises not receiving direct services through the dissemination of monographs on various issues which small scale entrepreneurs commonly confront.

#### IV. ANALYSIS

As Phase II draws to a close at the end of this year, CRS/Tunisia and UTICA are now considering possible strategies for the future development of CCD. UTICA and the Government of Tunisia have been very pleased with the evolution of the program thus far. CCD has gained a reputation among government agencies for its direct knowledge of the constraints facing the local small enterprise sector and its ability to reach enterprises with a service which entrepreneurs appreciate.

Despite the program's apparent successes, it had been difficult for CRS to get a handle on the impact of the program and whether it was indeed generating enough benefits to warrant the costs. This difficulty was linked to the program's not having an adequate management information system which could provide the basis for better understanding the dynamics between the costs of the delivery system and the program's impact on enterprise performance and in turn on community employment and income. The lack of such an information system also made it difficult to prove to donors that the program was achieving tangible results at an affordable cost. Indeed, there is generally a hostile policy environment in the donor community vis-a-vis non-financial assistance to small enterprises where critics often suggest that it is costly and has little impact.

CRS, UTICA and AID were thus eager to have a better grasp on the impact the program had had thus far and how the efficiency of its delivery system could be enhanced to maintain the subsidized costs at a minimum. In the eighteenth month of Phase II, CRS headquarters accordingly contracted a team to conduct an external evaluation that would focus on these issues. The team was comprised of Dr. Cheryl Lassen and Dr. Mahmoud Triki. The analysis presented below is based on their findings.

#### IV.A. Effectiveness

During the evaluation, twenty three manufacturers who had received consultancy in Phases I and II were sampled. Of those interviewed, 91% maintained that they had not only learned something of value from CCD, but that the consultancy had or would have a favorable economic impact on their business. The evaluators verified these assertions through an analysis of the estimated changes in levels of participating enterprises' profit (assuming a 10% profit margin on sales), employment and investment. For this analysis, complete data was available for forty-one enterprises in Phase I and for four enterprises in Phase II.

Despite the fact that 1986-86 was a year of economic downturn in the Tunisian economy, average sales of enterprises in Phase I increased by \$16,700 and the average increase in wages was \$27,400. The evaluators estimated, moreover, that increased profits plus the increased value of employment and investment generated economic benefits in Phase I that were ten times the cost of consultancy. Although it was too soon to measure benefits for the majority of Phase II firms, the four sampled suggested a benefit cost ratio of 148:1. The evaluators projected that the benefit cost ratio for enterprises assisted in Phase II would be generally greater than that for Phase I once data are available. This projection was based on their observations that the Phase II firms were more carefully selected for their economic growth and employment potential than in Phase I and that the efficiency of the services had increased in Phase II.

Since CRS entered into the development of this program based on the programmatic assumption that participating enterprises could catalyze growth in employment, the Agency was particularly encouraged to see that the evaluators had calculated a cost per job created of \$800 in Phase I. This rate is substantially lower than the average cost of generating most jobs in the industrial sector or even jobs in the informal sector.

In short, the evaluators concluded that CCD had developed a relatively effective service and that the program is creating considerably more benefits than it costs.

#### IV.B. Efficiency

Despite the benefits which the program is generating, the evaluators found that CCD's delivery system could be considerably more efficient.

## Biodata

Cheryl Lassen, a rural sociologist with expertise in Latin American and African farming systems and modernization programs, serves as a consultant to PVOs in program evaluation and small enterprise. As Director of Evaluation and Research at Partnership for Productivity International, she systematized an approach to credit and management education for small rural producers, as well as designed the training, monitoring and evaluation procedures to support this. Cheryl was an early member of SEEP, and authored A Systems Approach for the Design and Evaluation of PVO Small Enterprise Programs, a precursor of the Step by Step Guide. She also authored the PFP case study which appears at the conclusion of the book. Cheryl served as a respondent at the April, 1988 SEEP Forum on PVO Programs in Small Enterprise Development Potential and Limitations.

Bishwapriya Sanyal, is a Ford International Associate Professor in the Department of Urban Studies and Planning at the Massachusetts Institute of Technology. He has served as a consultant to the Ford Foundation, for whom he evaluated their income-generating projects in Bangladesh, and to the Agency for International Development, for whom he undertook a review of small-scale enterprise development. Other clients have included the World Bank and the United Nations Center for Human Settlements. Much of Bish's research and consulting work has been in the areas of urban and regional planning, housing, urban agriculture, and the informal sector.

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