

Insights Into Cost Effectiveness from One Private Voluntary
Organization's Perspective.

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I. Introduction.

This paper offers an inside view of the issues surrounding cost-effectiveness of PVOs, primarily from the perspective of one organization - Technoserve.

In the spring of 1987, Technoserve committed substantial resources to a long term internal exercise--the aim of which was to come to grips with some internal questions about the overall cost effectiveness of the organization's work. Because of the work that has gone into this effort - an effort which is by no means complete - we are in a position to complement the subject of the Advisory Committee's March meeting. Stark Bidde's background paper lays out the broad issues in cost-effectiveness for PVOs. This paper attempts to make some of those concrete by illustrating how one organization has been tackling an inherently problematic matter.

At the same time however, one organization's perspective is not enough. Therefore some attempt is made in the paper to extrapolate a few more broadly applicable propositions and recommendations which may be of use to others and to the work of the Advisory Committee.

II. Contexts and Caveats

The Context of the development endeavor as a whole: Starting with the largest context - the broad aims of the entire development industry - we should keep in mind that what we are all trying to do has never been done before in history. A deliberate attempt to foster and instigate economic and social development (some would say "to speed up modernization") by one part of the world on behalf of another part of the world, is a late 20th century phenomenon. It is still such a new kind of endeavor that we have as yet no broad norms of any kind, much less norms which lend themselves to quantification of effectiveness measured against costs.

However, because increasingly scarce money is involved in development assistance and some large donors are moving towards such norms and standards. This is inevitable. A recent example comes from USAID, which in December, 1987, cabled its missions in Africa regarding small scale enterprise credit projects. The cable stated:

"A review of ongoing and completed A.I.D. projects [in small scale enterprise credit] indicates that most never become self-sustaining, even in their pure credit functions. Even more rarely does any project totally cover the costs of its non-financial components."

Because of this situation, the cable sets out "draft performance standards" for these kinds of projects, and asks the missions for review and comment. Many of the standards are quantitative ones. It is significant that such standards are being asked of credit projects. It is to be expected that projects which deal directly in business-related components (such as money) will be asked to lend themselves to quantification. It is also significant

that sustainability has entered the picture. We believe that it is, correctly, the key driving force behind the entire concern about development effectiveness.

In any case, while broad gauged norms and standards for the industry are still lacking, the process of developing those, in specific sectors, is already underway. The fact is that while someday we may all have well-tested norms and standards to measure our work against, we are far from that today. For all we know, it may be possible that a 20 % "success" rate for development projects world-wide will come to be seen as highly respectable and perhaps even considered wildly successful. Given the magnitude of what we are all trying to do -change societies, institutions, economies and ultimately people -such results would not be surprising.

The Context of PVOs in the U.S.: PVOs are only now entering a period of professionalization, of greater sophistication, and hence have only recently begun to think about the overarching issue of effectiveness, much less grapple with something as problematic as cost-effectiveness.

Also, many PVOs engaged in development (as opposed to relief) until recently could legitimately use what detractors might call the "Pilot Project Gambit". Development-oriented PVOs are among the youngest of the players in development. Until the early 70s there were no more than a handful which were not involved in some form or another of direct provision of things, money, food, or services. As our sophistication grew about fostering long term development and change, it was obvious that a period of experimentation would be in order.

Therefore most projects, indeed most programs were "pilot" programs. Today, understandably, given the ambitiousness of our task, most remain pilot programs. It is legitimate to ask then "why bother with cost effectiveness measures at all?" In industry, no one asks about the cost-effectiveness of Research. Research by definition is an investment in learning that is expected to be experimental and faith (based on past experience) is maintained that research will lead to new products, processes, and eventually profits. Ought not the more complex goals of Development, at this stage in history, be given the same benefit of the doubt? In the ideal world, the answer would be yes, but in the real world, we do not have that luxury. Because of new pressures, because we are non-profit, and not incidentally, because of our new professionalism, we must tackle the issue.

PVOs who dealt with cost-effectiveness at all have taken one of two stances in relation to it. a) Their efforts have been driven by fund-raising needs. Thus, we have seen figures that look good, or even too good to be true, usually couched in simple terms such as "For each dollar you contribute to the XYZ fund, the following number of (families, clinics, immunizations, birth control devices, food packages, jobs ...) are (helped, built, given, distributed, created...). A recent annual report of a PVO stated unequivocally that the profit produced (not just the gross income) by all enterprises assisted by the organization was 3 times the total cost of the program.

There is nothing inherently wrong with using such data for fund-raising purposes - it is natural to do so. The concern to be raised is whether

such data are carefully derived and represent the true nature of the development endeavor.

b) The second stance which has been prevalent in PVO efforts to present cost-effectiveness data, has been a defensive one. Many of us have become more visible to public scrutiny in recent years and a current impetus behind cost-effectiveness measurement is the need to prove a point to an often adversarial constituency.

Neither of these stances is an appropriate beginning point for an attempt to deal seriously with the measurement of cost-effectiveness.

The context of the individual PVO: Within PVOs as a group, there is great diversity. Different kinds of development sectors are worked on by different PVOs. Within the same kinds of sectors, each PVO may use a different approach, or use different kinds of staff; some may employ volunteers, some paid staff, some expatriate staff, some national staff etc. And within the single PVO, there may be significant differences in types of projects so that assessing the overall cost-effectiveness of the PVO as a whole may not tell the story.

Given this diversity, and because there are no industry norms in development, it is especially important at this point that PVOs wishing to do cost-effectiveness measurement take the general literature on the issue with a grain of salt. No cost-effectiveness "system" or formula is likely to be applicable or adaptable to any single PVO. As a result, the best course to take is to custom-tailor the exercise to the specifics of each organization. While it may seem counter-intuitive, at this point in our evaluation the best route to credibility is the custom-tailored route. Reasons for this will become clear later in this paper.

The context of the general literature on cost-effectiveness: There is a substantial body of literature on the subject of cost-effectiveness measurement. That in itself is a sign that there is no single way to approach it and that there is debate within the profession of those who study and teach it.

The context of the for-profit world: We need finally to keep in mind that even on the "mainstream" playing field of cost-effectiveness measurement (the for-profit corporate world) there is evidence of doubt about how meaningful the figures are. The message in all this is: Cost-effectiveness measurement is not a science.

Finally, we note that one of the first things Technoserve discovered in its attempt to ensure credibility of its efforts was that cost-effectiveness measurement is not high on the list of priorities of one of the major players in development - the World Bank. The Bank, having tried at different times in the past to deal with the issue, has found that it is in essence too fraught with problems. This was both humbling and enlightening for us.

III. Broad Principles.

Technoserve, around 1975, made early attempts to quantify its impact. This was in effect an attempt at cost-effectiveness measurement. Being in the

enterprise development business and focusing only on that sector, and being then a very small organization with straightforward accounting, it seemed we were in a relatively easy position to come up with some numbers. However, we fell into some common traps in spite of these small advantages. The moment one tries to move from the abstract to the concrete case problems of definition arise immediately. These have been outlined in Stark Biddle's paper; things like how to handle indirect costs are only the tip of the iceberg. We ran immediately (and still do today) into questions about inflation, local currency, changing rates of interest, not to mention the headier issues of unintended consequences, or being stymied by not knowing how to count the value of work by other organizations which may have preceded us in a project.

Our early work in this area was strongly driven by a decision to keep the effort manageable--to keep it simple enough to be do-able. In short cost-effectiveness measurement must in itself be done in a cost-effective way.

We looked for a fundamental principle to guide us. What were we measuring? Because we worked with enterprises we quickly concluded that we had built-in standard criteria like income, jobs created, wages paid, profits, and inevitably we ended up in what we might call the Internal-Return frame of mind. Because we worked with enterprises the common sense logic - that what corporations use was natural for us to use as well- seemed inescapable.

As a result, when it came to measuring cost-effectiveness we did not look beyond the enterprise. This was a mistake, but a common one. Many organizations today tend to think about cost-effectiveness measurement in a more or less static input-output frame of mind; What does a dollar spent produce?

The problem is that this approach skips over the very thing that makes our overall endeavor so formidable. We (PVOs) are in the business ultimately of helping others improve their lives. Thus everything we, as a community, do is an instrument--a vehicle of change and not an end in itself. To put it mildly, this complicates matters.

There are two positions PVOs tend to take on the instrumentality issue, one might call them the direct and the indirect positions. They are basically matters of faith. Some PVOs feel strongly that the trickle-down theory is wrong - that development projects must directly tackle poverty and its associated problems. Therefore they want and need to measure a whole host of benefits that are assumed to be associated with poverty alleviation.

Other PVOs are more agnostic about trickle down and more open to the possibility that some things - mostly at the local level-will lead more indirectly to poverty alleviation. These organizations tend to see certain things as proxies for the eventual benefits we all wish to see. For example, Technoserve assumed (and still basically does) that increased income to poor people is a good proxy measure for a whole host of benefits (e.g. if people have more income they can "buy" better health, better housing, better education and so on). Likewise, other organizations who are in primary health care assume that better health leads to overall economic

growth and broad improvement in a developing nation. These are not unreasonable assumptions, but they are in the end, still matters of faith more than fact since we do not yet know enough about where all our work leads.

In any case, Technoserve, 10 to 12 years ago, did not look beyond the enterprise, assumed it was a sufficient end in itself (that is we took it as a proxy) and assumed further that if the enterprise was healthy (profitable) that was pretty much all we needed to know. This is the most plain sort of input-output measurement -- one that still prevails in our industry. X dollars in, Y clinics built; X dollars in, Y profits made.

As our organization evolved and learned, we did not abandon enterprises as our focus, on the contrary, we strengthened our capability in this regard. However we did finally remember that the enterprise is after all very much an instrument. Sustainability became more of an issue as the critical principle in PVO cost-effectiveness measurement. Somehow we needed to come to terms with the time element and relate it in a more complex way to impact.

Impact in the corporate sector (and hence effectiveness) is a matter of profit, sales, market share. Its measurable in the present. You have achieved it at the end of the fiscal year or you haven't. Impact (effectiveness) in the PVO business is a matter of time. If you are in Primary Health care, how do you quantify in cost-effectiveness terms a clinic built at low cost that is unused and abandoned or broken down after one year of operation?

In Technoserve's case we saw that an enterprise can be profitable while the low income people, who are participants in it, are not making more money. On the other hand, it is possible that an enterprise which is not profitable still has the effect of enabling low income farmers to increase their income. But more important, we had to find a way to see whether the enterprise was instrumental in producing a stream of benefits over time to the people we intend to be reached by that enterprise.

Once we began asking that question, we abandoned our "internal return" thinking which tended to look at one point in time. This was the beginning of our confidence that while we had to be up to date on the literature on cost-effectiveness, we had to be free to think about the matter taking our own purposes, strategies and understandings into account.

We of course jumped from the frying pan into the fire at that point. Because one thing leads to another, stream of benefits demanded the question for how long?, what benefits? To whom and how widespread? etc.

Intuitively we guessed that there is (and can be) no firm answer to any such question. It will always be an "it depends" answer. Nonetheless we felt an arbitrary number, given what we (Technoserve) know about the countries we work in, and given the focus of our organization, that a reasonable period for a stream of benefits emanating from the enterprise would be 10 years. The principle of custom-tailoring the cost-effectiveness formulae was taking shape.

Next we stepped back and again asked ourselves why we were making the

effort and how the data would be/could be used. This involved some soul-searching because there was not universal agreement about whether to undertake this kind of effort, much less about its usefulness. Still, there was agreement about our desire to manage better, to be better stewards of the monies entrusted to us, to learn from our experience, and to enable us to choose projects which would be more sustainable.

We concluded that we could only make significant progress if we made this an internally oriented exercise initially. For several reasons. First we felt if we separated the PR potential from the cost-effectiveness exercise we would be free to let the chips fall where they may. Second, we needed to fully involved our field staff and felt that they would be reluctant to be critical if this was not intended for internal consumption. Third we knew from earlier efforts that this would involve a process of trial and error and that as the formula was tested it would need to be refined several times.

We also discussed some dangers - most important among them that the results could cause us to significantly alter our strategy over the long term. We had to decide at the outset that we would live by the results.

Finally, we confirmed for ourselves again that this kind of exercise, no matter how sophisticated it gets, is useless unless it fits within a defined strategy and conception of where it is the organization wants to go. For without a well-conceived broad strategic framework, any cost-effectiveness exercise will be stunted, if not useless. In order to measure the relationship between impact (benefits) and cost in an even remotely meaningful way (that is, taking many factors into account) an organization needs to have the broadest conception of its hoped for long range impact in mind at the outset.

IV. The Process.

What follows is a narrative account of Technoserve's experience with our cost-effectiveness exercise to date.

1. Coming up with a framework.

Having decided to "custom make" a cost-effectiveness formula to Technoserve's specifics, we concluded, because we had a large number of staff with fairly long tenure in the organization, that by polling a sample of our staff, we could distill our own key criteria of cost effectiveness. These would then be matched to see if there were any discrepancies with our long term strategic plans or our corporate mission statement.

The result was a set of working criteria which looked like this:

A Cost Effective project for Technoserve is one that:

- Can generate enough income to be self-sustaining,
- Will increase enterprise income,
- Produces jobs/wages for local workers
- Increases equitable ownership for members,
- Increases participants' sense of control over their lives,

Increases and sustains productivity,
Improves linkages with other areas of the economy,
Has positive effects on national policy,
and is consistent with Technoserve resources.

Our desire to custom-make the formula to our own specifications notwithstanding, we still did not want to re-invent the wheel. As a result, two staff members spent about one person month researching cost-effectiveness literature and processes used by other organizations. Additional time was spent at the World Bank in order to discuss certain issues, particularly the use of the "social discount rate". (The social discount rate attempts to express a society's preference for present returns over future returns, independent of inflation. This measure is somewhat analagous to the opportunity costs of capital.)

As a result of this research and consultation process, we decided that it did appear possible to develop a cost-effectiveness analog to the better known "Benefit/Cost ratio (and specifically use a social discount rate for each of the countries we work in) and that this would be "mainstream" enough to maintain external validity.

2. The basic outlines of the formula to date:

We decided that we would start with three financial indicators relating to enterprise and individuals:

Benefits = Increase in farmer's income
+ Increase in enterprise income
+ Increase in salaries and wages paid by enterprise

and that Costs would be:

= Technoserve project and direct administrative costs (does not include Home Office overhead assigned to project)
- (Minus) Fees paid by enterprises for Technoserve services

The ratio is the present value of benefits divided by the present value of costs. The benefits in local currency were converted to present day (1987 in this case) local currency using Consumer Price Indices for each country. Benefits were then discounted by a country "social discount factor" to bring them to a current discounted value. This figure was then converted to dollars using the exchange rate for that year.

Costs were already in dollars. They were then discounted by the yearly T-Bill rate to bring them into current value. Now, what about the difficult area of benefits which are essentially not quantifiable (see working criteria framework in 1), above.)? In effect, we decided we needed to try to quantify the unquantifiable - recognizing the limits to this attempt. We thought that using a system of weighted values and individual ratings, we could produce a multiplier factor which could be applied to the results of the financial benefits and costs analysis (above).

Through a process lasting several weeks, and again using a "polling method" we divided the non quantifiable benefits into three categories: social,

economic and policy benefits. An example of Social benefits would be "Increased access to public services" or "greater participation for marginalized groups"; an example of Economic benefits would be "increased employment" or "improved backward /forward linkages"; and an example of Policy benefits would be "Improved national policy environment for rural enterprises", or "institutional policy impact".

Then weighted values for the relative importance of each category and subcategory were determined through discussions among staff.

The intention is that eventually these "non quantifiable benefits multiplier sheets" will be filled in independently by at least 3 staff members in the field who have knowledge of and responsibility for a given project under study.

The idea is that each rater would assign a value representing the degree to which Technoserve's intervention had an impact (positive or negative) on the given category.

3. What simplifying assumptions were made?

As the exercise proceeded, new complexities, questions and pitfalls showed up. There was a need therefore to make some simplifying assumptions and state them up front. These were:

* Assumed all costs and benefits are paid/received on the last day of the year.

* Data were considered to be constant when projected into the future. (The last available figure was carried into the future.) Although incomes were likely to increase if they had been up until that point, many external circumstances could cause a downfall in projections. Therefore, a constant projection was assumed to be safe.

* Figures were carried out 10 years into the future. In the case of past projects, projections were made 10 past the end of Technoserve's intervention. Generally, in financial analysis, projections are made 10-20 years into the future depending on the project. Because we are working in some politically and economically risky countries, 10 years was considered conservative. In order to be consistent, all projects in all countries were evaluated with the same standard. [Longer time frames can increase the amount of future benefits, and consequently increase the value of the resulting ratio.]

* Only direct financial benefits to participants were considered in the calculations -- increased quantifiable benefits to non-participants and benefits to the surrounding community were not included. This was a very conservative assumption because we try to effect change in the entire community, but it is a more useful measure for managerial decision making.

* Social Discount Rates were decided upon for each country using 10% as an average within a range of 8% to 12%. (8% indicates a slow economy, 12% a fast economy). These are the standards used by the World Bank.

* Cyclical changes in agricultural yields were not included. It was

assumed that patterns could be built in at a later date.

4. Major current problems with the formula.

* Foreign exchange issues can overshadow other differences in projects due to the fact that costs are generally in dollars and benefits are in local currencies.

* Also, the value of salaries paid skews the formula. If higher salaries are paid in a certain area, this is reflected as a benefit provided by the project. This is not always appropriate and should be addressed. Therefore it is not clear how appropriate it is to compare projects from vastly different countries.

* Information is gathered from several sources which report results in both local currency and in dollars. Data for this exercise is more useful if available in local currency --otherwise, the use of different conversion factors (to convert to dollars then to convert back at possibly another rate) can result in inaccurate calculations.

* The concept of calculating "net" benefits to the participants implies that we need accurate baseline data. Unfortunately, for some past projects begun and completed some years ago, this data was not collected. The net benefits therefore have to be estimated. How can these results compare with calculations using actual data? The need for baseline data also implies changes in the management information systems in some offices.

* Use of such a formula could bias us towards projects involving those who do not need assistance as much. Assistance is cheaper, for example if provided in a city and participants are more likely to be better educated. Also, wages are likely to be higher and the chances of success of a project will be generally higher due to better infrastructure. Therefore, measures have to be taken to remind field staff that higher numbers in the quantitative component of the formula are not necessarily better and they will be tempered by lower marks in "reaching marginalized groups, increased community solidarity, etc." if projects do not reach Technoserve target clients in target areas.

5. Issues still to be resolved

* How to account for interventions (subsidies or donations) by other organizations. Other international organizations have provided technical or financial assistance to TNS groups. This assistance was not counted in our formula although we know it has an effect on the outcome of a project. If not included in the calculation, it skews the results when compared with other projects which did not receive this assistance.

* We need a method to estimate the opportunity cost of project participant's time to estimate the net income benefit of our assistance. What was a farmer's time worth before Technoserve intervened?

* Who should do this analysis? If it is to be used in the management feedback process in the field, shouldn't the field staff do the analysis? However, the process is time consuming and must be standardized to have meaning when comparing projects, so there may be benefits of the home

office doing the quantifiable calculations. A compromise might be for the field to send in copies of the documents used to calculate figures with a highly annotated spreadsheet which can be checked for consistency by the home office.

* Should we require the same information gathering and analysis of our less well developed field offices?

* Technoserve has at least ten different types of projects (agro-industrial marketing, savings & credit, etc.). How different should the spreadsheets be? Should the home office design the spreadsheet templates?

* Is the level of financial analysis we propose to do in depth enough? What if we decide to become more detailed over time? How is this going to affect the calculations already completed?

* How can we capture the notion of "soundness" of the enterprise vs. the profitability? Profitability is often determined by market prices of goods which are out of the control of the enterprise and therefore not replicable. If the end result of this analysis is going to tell us something meaningful about good and bad projects, we should somehow account for the existence of a quality, productive project which does not hinge on the end price of their product.

* How should country risk be accounted for? If not included, formula will be weighted toward easier projects.

* What are acceptable ranges for the numbers that result from this process?

Re: the NON-QUANTIFIABLE MULTIPLIER:

* How should weights be determined for the Non-Quantifiable Benefits? We realize that the home office staff may assign a different priority to some benefits than the field office staff would. Which is more correct? How can these views be combined?

* Should the Non-Quantifiable weighting factors be the same for all projects and all programs? Our African programs have distinct aims from our Latin American programs. How should this be related in our assignment

6. Implications for Technoserve of using the formula

Positive:

- * Embarking upon this exercise indicates a willingness on the part of the organization to take a serious critical look at our projects. Some of the projects may not come out looking as good as was previously thought.
- * The process will allow us to learn more from past projects and will identify areas where we have been especially effective. It will confirm what we already know about the success of some of our projects and will test what we think against a relatively objective measure.

Negative:

- * The numbers we derive can be used out of context. Because our process was designed for internal management use, we have made decisions to include and exclude certain information from our formula. Our figures are generally very conservative, only including directly related benefits, and including some overhead program costs. Other organizations can over estimate benefits and underestimate costs by making other assumptions and come up with much higher benefit/cost ratios. However, these results might not be as useful for managerial decision making.
- * Each country appears to have its own range of acceptable C/E numbers. Therefore, a considerable number of projects must be evaluated to determine those ranges before the end result will have any meaning. This process requires investments of time and money - which may limit the extent to which other organizations can undergo the process.
- * Since not all projects are alike, special effort must be made in designing the cost-effectiveness model (including spreadsheet templates) most suitable to each particular case. This will require considerable time investments by knowledgeable programmatic staff to produce a tool that will be useful at the different stages of the development of a project.

7. Reactions among different management levels to the process

Perspective from the home-office management:

Positive:

- * The resulting spreadsheets are very useful summaries of our projects to have in the home office. Until now, such financial information has not been collected in one place.
- * The home office already thinks in terms of streams of costs and benefits. The process will get the field offices thinking in the same terms. The field office will also see how expenditures in US dollars for equipment and expatriate staff can upset the resulting ratios. These issues need to become more a concern of the field offices.
- * Technoserve has a long term perspective on projects. This "stream of benefits" approach captures the long term nature of the benefits of our

projects and justifies the up-front costs.

* The process can be used as a training tool for new staff. Using a spreadsheet, managers can show staff how inaccurate estimations and certain expenditures can affect the formula results -- and project results.

Negative:

* Some of the information that we require is either not presently collected by our offices or is unknown by our project participants. (e.g. before they learned to keep records and accounts, they did not know what their salaries were, so calculating accurate "net" change is not possible).

Perspective from the field:

Positive:

* The non-quantifiable aspect of the formula provides another way for the field staff to communicate their reasons for pursuing projects which may not seem to warrant assistance on a financial basis alone.

* The spreadsheets will help them to compare year by year changes in costs and benefits and can help project managers make future projections. The spreadsheets are a handy tool.

* Allows field to communicate concretely how they feel future benefits to the project participants will increase. Helps them to make decisions on whether to pursue a project or not.

* Although it is not expected that participants learn to use spreadsheets, the field advisors can use printouts of various scenarios of their production costs and yields to train participants to evaluate the effects of their decisions on future income streams.

Negative:

* Adds yet another layer of data collection and reporting. If existing

organization because of the time and detail of information to carry out the process. Because of the complexity of the formula and the simplifying assumptions that have been made, it is necessary to carry out training sessions to introduce the formula to field staff. It seems a mistake to try to introduce the process with only written instructions from the home office. Also, in order for the process to feed back into the management processes of the field offices, they must be involved with the process of collecting and analyzing the data. It appears that the process is equally as important as the results. However, this will require training of field office staff so that they fully understand the purpose of the formula (in order for them to adapt the process and the spreadsheet templates to individual projects and to suggest improvements to the system.) This implies considerable lead time and budget commitments.

3. We see more clearly the need to re-evaluate and test the appropriateness of the formula -- to be in control of its meaning and uses and not to let it override our better judgement. We used other forms of evaluating the same projects to test the validity of the formula results against our common sense. Based on these evaluations, the formula has already been altered. We must continue to do this over time as our programs change.

4. The financial component of the formula must be kept separate in order to preserve the integrity of the resulting numbers. The spreadsheet assumptions are conservative and use generally accepted methods of financial analysis. The Non-Quantifiable component is subjective and is much more likely to change as Technoserve priorities change. It therefore is more useful if kept separate.

5. The subjective component of the formula was limited in the affect it could have on the financial ratio. Because Technoserve focuses on work with enterprises which quantify their output and productivity, we wanted to limit the ability of the Non-Quantifiable Multiplier to increase the financial results. Otherwise, the "bottom line" of assisting low-income people to manage sustainable and productive enterprises might become lost. The Multiplier was therefore limited to 2 (the cost/benefit ratio could be doubled if non-quantifiable benefits warranted.)

6. Interpreters of the Technoserve formula need to be briefed on the purpose and context of the results. Our formula was designed for internal purposes and assumptions were made on that basis. It was not designed for donor purposes or for comparisons with other PVOs. As we have learned from comparisons between our own projects, the raw numbers in themselves cannot be compared and have meaning out of their country and institutional contexts. To compare the end figures with entirely different organizations would be even less appropriate.

7. The process will generate financial data necessary for donor and PVO purposes. In the process of gathering information for use in the Technoserve Cost Effectiveness Formula, we have gathered standardized information which had not been previously available in the home office which can provide a basis for comparison with other programs.

8. The Non-Quantifiable multiplier provided a novel means of communicating priorities to the field. As the weights on the Non-Quantifiable multiplier

are decided upon and revised over time, they provide expressly stated objectives of our programs. This increases the communication between the home office and the field offices and provides non-financial guidelines for choosing new projects.

9. Instituting a cost-effectiveness process is an expensive proposition.

VI. Conclusions.

Is cost-effectiveness measurement a useful tool for PVOs?

If properly done and carefully qualified, the answer would seem to be YES. Its highest usefulness would seem to be as an internal tool, rather than as a promotional one. There is little question that such an analysis triggers important questions within an organization that probably otherwise would not be raised. It would seem that the discipline fed back to the organization by the process would have positive reverberations in all aspects of the organization, and especially in strategic planning.

However, the greatest danger in using such a tool is that, because we tend to ignore what we cannot see, and because we are acculturated to believe in numbers more than words, it might be tempting to conclude that if certain benefits are not (or cannot be) calculated, it is as if they did not exist at all.

The need for perspective, and a constant renewal of perspective is essential. One of Technoserve's field directors made this comment:

"This attempt to come up with a formula will never do justice to our efforts, because we are trying to compare the cost of assistance to units of improvement in socio-economic conditions in the short run (in development terms) after Technoserve's intervention. The problem with this is that no matter how positive the results look, almost any other alternative (to what we as a PVO does) will be more cost-effective, since the core of our work is really directed at changing the way people think about themselves, their future, creating initiatives, and developing new skills in people, rather than simply improving their socio-economic condition, even if for ten years or more."

In what situations are PVOs most cost-effective?

This is a very difficult question. We can only answer this on the basis of our initial analysis (note our analysis to date is based on a sample of 10 projects run through the formula.) We would tentatively suggest that the following elements may be extrapolated to apply in general:

- When feasibility of project or program over the medium term is done as systemically as possible (casting a broad rather than a narrow net over the field of variables).
- When a sector strategy or focus is maintained. This enables the learning curve to be taken advantage of.

- When a conception of the stream of benefits over a long time period is built in at the beginning of the program.
- When the organization's efforts are concentrated in a region or sector rather than spread thinly.
- When there is a reasonable relationship between expatriate costs and local staff costs.

What are the institutional characteristics which would seem to enhance cost-effectiveness?

These are characteristics which will seem self-evident once stated. However, our exercise so far seems to reinforce them:

- In the broadest sense, the main characteristic would seem to be to concentrate on what the organization does best. Use comparative advantage.
- Persistence and staying power within a sector or region are critical.
- Related to the above is the importance of experienced staff who can maintain a presence in a program.
- The importance of management information which is accurate and geared to flexible decision making is critical.