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**DEVELOPING PERFORMANCE INDICATORS:  
A COLLABORATIVE APPROACH**

**Submitted to:**

Mr. Pirie Gall  
Project Development Officer  
A.I.D. Regional Office for Central American Programs  
Guatemala City

**Submitted by:**

**MANAGEMENT SYSTEMS INTERNATIONAL**

600 Water Street S.W., NGU 7-7  
Washington, D.C. 20024



telephone: (202) 484-7170  
telex: 4990821MANSY fax: (202) 488-0754

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	<u>Page</u>
1. PROCESS AND BACKGROUND . . . . .	1
Purpose of the Consultancy . . . . .	1
Evolution of the Scope of Work . . . . .	3
What Happened . . . . .	4
2. METHODOLOGY . . . . .	6
Distinction Between Objectives and Indicators . . . . .	6
Characteristics of Effective Indicators. . . . .	7
Conceptual Model . . . . .	8
The Process of Developing Indicators . . . . .	11
The ROCAP Workshop . . . . .	12
Emerging Issues Regarding Indicators . . . . .	14
3. PROJECT REVIEWS . . . . .	16
4. SUGGESTED GUIDELINES FOR INDICATORS . . . . .	28
CATIE . . . . .	36
INCAE . . . . .	44
5. SOME CONCLUSIONS AND LESSONS LEARNED. . . . .	48
Refinements to Indicator Development Methodology . . . . .	48
ROCAP Project Performance Indicators . . . . .	52
Issues in Collaboration . . . . .	56
The Value and Difficulties of Collaboration . . . . .	59
The Need for Improvements in the Project Monitoring System . . . . .	60
The Tension Between Management Information and and Accountability . . . . .	60
6. PENDING ISSUES FOR ROCAP. . . . .	62
Management Context for the Use of Indicators . . . . .	62
Further Technical Assistance on the Development and Use of Impact Level Indicators . . . . .	63
Mechanisms for Post-Project and Wider Tracking of Impact-Level Indicators . . . . .	63
Completing the Collaborative Process for Identifying Useful Indicators . . . . .	64
Alternative Structures for Institutional Relationships . . . . .	64
7. SOME FURTHER RECOMMENDATIONS. . . . .	66
On Ongoing Process for the Development of Indicators . . . . .	66
Performance Measures Generalizable Across ROCAP Projects . . . . .	67
About Indicators for CA/P Institutions . . . . .	68

## LIST OF TABLES

3.1	TREE CROP PRODUCTION (Product of Meeting with Project Team) . . . . .	18
3.2	REGIONAL TROPICAL WATERSHED MANAGEMENT (Product of Meeting with Project Team) . . . . .	20
3.3	REGIONAL EXPORT MANAGEMENT TRAINING (Product of Meeting with Project Team) . . . . .	21
3.4	FOOD ASSISTANCE INDICATOR IDENTIFICATION MATRIX (Product of Meeting with Project Team) . . . . .	23
3.5	CHILD SURVIVAL INDICATOR MATRIX (Product of Meeting with Project Team) . . . . .	26
4.1	FOOD ASSISTANCE PROJECT (Suggested Guidelines for Indicators) . . . . .	29
4.2	CHILD SURVIVAL PROJECT (Suggested Guidelines for Indicators) . . . . .	32
4.3	WATERSHED MANAGEMENT PROJECT (Suggested Guidelines for Indicators) . . . . .	37
4.4	TREE CROP PRODUCTION PROJECT (Suggested Guidelines for Indicators) . . . . .	40
4.5	EXPORT PROMOTION PROJECT (Suggested Guidelines for Indicators) . . . . .	46
5.1	GENERIC OBJECTIVE TREE FOR INCAP PROJECTS . . . . .	49

## 1. PROCESS AND BACKGROUND

### Purpose of the Consultancy

This consultancy arose from ROCAP'S need to track the progress and ultimate impact of projects it supports. An interest to go beyond the indicators identified in the Project Paper's Log Frame is motivated by both a need to determine the extent that the project is achieving its purpose and is having a development impact, and to demonstrate that continued support for ROCAP and the regional institutions is warranted. It also responded to a desire by many within ROCAP for a more collaborative and more streamlined and efficient system of project management.

The original scope of work emphasized identification of indicators and establishment of data collection systems for tracking these indicators. As the consultancy evolved, the work of the consultants became one of working with the Central American institutions, and ROCAP's evaluation and project officers, to analyze the project's objectives and technical issues and collaboratively to develop indicators felt to be important by the Central American institutions. The process reached differing stages, depending on the time and personnel available in each institution. In all cases, however, we were gratified to see that those who participated in workshops expressed the feeling that this was more than an "exercise;" rather they felt it is truly important to identify and track indicators in the ways envisioned.

We also believe the consultancy has important implications for the Agency as a whole to the extent that we have furthered the development of a methodology which makes it possible to track the effect and impact of A.I.D. projects at low cost and with little additional administrative burden. At present, official interest in a project ceases once the last A.I.D. dollar is expended - usually long before the development impact is felt. Much attention has been given to the need to track impact beyond the life of the project, but we believe this consultancy is among the few efforts to attempt to do so in practice.

Perhaps more than with most similar consultancies, a high level of clarity on purpose and operational implications is likely to be important to the effort's ultimate contribution. From the view of a skeptical observer, the purpose of this exercise might appear weak or vague. After all, indicators are listed in the log frame of each project as well as in other parts of the project paper; and projects already have systems, often elaborate ones, for reporting activities and results to ROCAP and others. Generally discussions already have taken place, at various stages of project planning and implementation to develop a consensus on objectives and how they might be monitored. It is not hard to mistakenly conclude that much of what this exercise is designed to do might already have been accomplished by existing mechanisms. There is some indication that this had been the initial view of at least some people at ROCAP and elsewhere. The possibility of this perception has also been clear to the consulting team itself. So the task was approached with close attention to how it could be genuinely useful to ROCAP and the regional institutions, and how

it might contribute in a practical way to ROCAP's project management system. Emphases of the consultancy relate to: 1) greater emphasis on purpose-level impact; 2) greater emphasis on national organization institutional development; and 3) greater emphasis on collaboration between ROCAP and the regional institutions.

During the course of the consultancy, this issue was raised on numerous occasions. In fact, significant interest was evidenced for assistance in devising an effective system of indicators to monitor these projects. With all the data collection and reporting mechanisms currently in place, it seemed clear that at least some aspects of this important task were not being accomplished by the present system. Thus, in spite of initial skepticism, there was significant openness to help from the outside, which might fill the gaps to improve monitoring, evaluation, and reporting.

Interestingly, different project team members were perceiving different priorities regarding the potential contribution of the exercise. In some cases, the needs seem most related to the lack of effective collaboration between ROCAP and the grantee. In these situations, people already may have what they consider to be effective indicators. Their need is for everyone to have and to be using the same ones. In other cases, indicators may be vague, for either technical or political reasons. Indicators are a great context for the "treaty syndrome," i.e., keep it vague enough so that everyone can leave the meeting agreeing, without full regard for what might happen during implementation. In still other cases, issues may be perceived as more technical, stemming from difficulty in identifying indicators which actually measure the impact desired, e.g. technical assistance on an entire sector. In other cases, project documents may have been assembled without adequate attention to the full resolution of outstanding issues, or without the full participation of those involved. In instances such as these, there appeared considerable willingness to work with the MSI team to strengthen the project management systems. So aside from some general skepticism, the purpose of this exercise and its potential contribution have meant different things to different people, at ROCAP and in the field as well.

Those most receptive to the exercise were the project teams at the regional institutions. Particularly after the purposes and process were put forth, the consulting team found willing, and in many cases enthusiastic supporters among those on the staffs of these projects. One of the most successful aspects of the exercise, from the perspective of the consulting team and ROCAP, has been the extent to which the process of identifying indicators, including those at the impact level, has been really taken over by the project teams themselves. This "ownership" is far more likely to produce something of value to the project management system over the long run, although it does have implications for the immediate role of the consulting team and the potential of the exercise to promptly produce indicators for the projects under discussion.

From the beginning, this consultancy has entailed both technical and process aspects, involving assistance in identifying well-designed indicators and support in organizing an effective process for project managers and implementors to develop and agree on their own indicators for

the projects. Both elements are present, though over the course of the field visits the intervention moved clearly toward the process approach of this challenging task.

### Evolution of the Scope of Work

In consultation with the ROCAP evaluation officer, we abandoned the idea of presenting our proposed indicators to the various institutions. This was primarily because of the feeling, within both ROCAP and the Central American institutions, that it was far preferable to have the process of developing and gathering indicators internalized within the organizations than to impose such indicators developed by outside experts. So the emphasis was on ownership by the regional institutions, even if this process might result in some loss in technical rigor and the potential for comparability among projects.

As a result, we focused primarily on the process of group and institutional dynamics in developing indicators rather than on our analysis of the content of the projects. We found that all working groups responded favorably, once they felt that they understood the process and the matrix, that they were in charge of the process, and that our role was to be primarily facilitative.

It was also decided to shift emphasis from developing indicators at the results (outputs) level to the effects (purpose) and impact (goal) levels. In part this was because specific and practical indicators at the output level are already specified in the logical framework, or in reports which must be submitted to ROCAP on a regular basis. We also chose this approach because it was felt to be more important to focus on the indirect and long-term results of the project.

Because of the tendency to focus on national institutions rather than the Central American institution themselves, we found it helpful to add an extra column to the matrix which obliged the regional institutional to focus on its own institutional development and sustainability. All institutions felt the need to diversify sources of financial support and the need to demonstrate their value to people and institutions at the national level and all were willing to develop these types of indicators; although there was justifiable skepticism about the ability to increase the financial contribution of the Central American governments.

Because the staffs of the regional institutions had limited time available, and in any case it is difficult to maintain the intensity of this exercise for more than a day or day-and-a-half, we were only able to initiate the process. In some cases we were only able to get as far as the initial brainstorming of possible indicators. In others we were able to move further to tentative selection of a smaller and more useful number. But in no case was there sufficient time to decide on how, how often, and who will be responsible for gathering and reporting the indicators which would be ultimately selected. The process will be furthered, however, by the comments and suggestions we left with CATIE and submitted to INCAE. It is important that ROCAP continue the dialogue with the CA organizations to maintain the momentum which has been initiated,

reach conclusions on the pending matters, and ensure that the process of selection, gathering, and reporting is institutionalized within ROCAP, and the regional institutions.

### What Happened

The consultancy was initiated in mid-November, in anticipation that the first field visit would be made to CABEI in December. Mr. Cooley briefed the members of the team (Alan Hurwitz, Roger Popper and Donald Finberg) at MSI offices on the results of his preliminary meetings at ROCAP. The team then reviewed project papers, work plans, reports to AID/W, and evaluations and discussed the proposed approach, which would involve a methodology emphasizing both programmatic and institutional impact.

Interviews were then held with a number of AID/W officials in both the LAC Bureau (in part to determine the relationship between our work and the ongoing Management by Objectives approach) and A.I.D./S&T to determine what work had been done on impact indicators. With the exception of activities in the health field, we determined that little consensus had yet been achieved on identifying impact indicators, particularly in higher education and for institutional development.

The December trip was postponed at ROCAP's request, and the consultancy scheduled for January (for discussions with ROCAP staff and visits to CABEI, CATIE, and INCAE) and February (for visits to INCAE and a workshop with ROCAP). By the time the team arrived in January, it had developed both a proposed methodology and suggested indicators for each of the six projects included within the scope of work.

Because ROCAP and RHUDO were considering changes to the CABEI Housing and Urban Development project, it was decided by ROCAP that our consultancy should be limited to discussions with ROCAP and RHUDO. The other consultancies proceeded as planned. In each case we found that most members of the host institution became enthusiastic about identifying indicators - seeing it as being in their own interest, rather than as a requirement being imposed from outside.

This is particularly important because two of the institutions had recently participated in "collaborative evaluations" which they felt had ended up as "external" evaluations in the worst sense. This also led to the decision to work as consultants to the institutions to help them develop their own indicators, even at the cost of rigor, rather than for the team to propose its indicators.

This approach also included some important flexibility. When it appeared that one working group was focusing on institutional development of national organizations, but not on institutional development of the regional organization itself, it was decided to expand the matrix to

ensure that sufficient attention was paid to the Central American grantee institution. Similarly, some working groups wished to have an additional level of indicators between the Results and Impact levels, so the level of Effects was added. Thus, a flexible matrix was developed, ranging from four to nine cells. Each of these modifications was discussed thoroughly with RCCAP's evaluation officer and implemented in conjunction with his suggestions and help.

## 2. METHODOLOGY

### Distinction Between Objectives and Indicators

During the course of the consultancy, objectives and indicators were treated almost as interchangeable. While they are closely related, they are in fact separable, as the Logical Framework attempts to clearly demonstrate.

Objectives describe the nature and intentions of a project, and defining them is the task of strategic planning.

Indicators give specificity to objectives, and are developed in tandem with objectives, partly to guide the design of monitoring, evaluation, and reporting systems, but partly also as a check of the coherency and plausibility of the linked hypothesis implicit to the project's design.

In general, definition of objectives lends itself to collaborative, consensual processes, while development of indicators is more amenable to analysis by specialists. An advantage of blurring the difference between objectives and indicators has been to find out what collaborating organizations think that their projects are about in a non-threatening, free-association way. Although a collaborative process is essential to objective setting, it may be an inefficient way to arrive at rigorous indicators. Disadvantages of blurring the distinction between objectives and indicators include the following:

1. Important objectives specified in Logframes, contracts may not be addressed;
2. An opportunity to assess changes in project purposes since the Project Paper Logical Framework was written can be missed; and
3. To start off thinking about "indicators" and the characteristics necessary to measurement formalizes thinking and may stifle creativity.

This exercise was envisioned as focussing on indicators, i.e. giving greater opportunity to objectives which were already in place. This would lend itself to a more technical approach. During the exercises it was found that in many cases there was still unfinished business regarding the nature and priorities of the objectives themselves. This was one of the main reasons which led to the greater emphasis on the collaborative, process approach.

## Characteristics of Effective Indicators

Some of the characteristics of effective indicators are quantity, quality, and time.

Quantity refers to the amount of the product or service produced or how much growth in production or incidents of changed behavior have occurred as a result of the project.

Quantity is generally represented by a number, percentage change, or sometimes a level, as in a poverty level or critical mass of adopters of new technology, regarded as insightful by specialists concerned.

Quality refers to some measure of the nature of the units being counted. This is often the most difficult component to express clearly since it refers to aspects which are so often subjective in nature. Sometimes numbers are used - houses below a given cost, jobs with salaries above a given minimum, ... or below a maximum given cost. Sometimes to arrive at a good quality indicator, questions that must be asked: "Would every type of what is being counted result in the effect which is desired?" Since quality of output produced generally is of concern, then "what are the important qualitative features that must be considered?"

Time generally refers to the period of time within which the objective will be met, or frequency that the indicator will be measured. In identifying indicators, time frames which make sense in terms of project objectives may extend beyond the life of the project. In these cases, the question of how will the data be collected was given particular attention by the team.

When indicators were mostly of use to the CA/P institution to track elements of its own mission, the CA/P institution would be designated responsibility for data collection; and when the data was primarily of value to ROCAP, ROCAP was assigned both financial and administrative responsibility.

Effective indicators are plausible, measurable, and efficient. Plausibility factors partially depend on how the indicators will be used. Indicators which might be accepted for use by a project team for its own management purposes might not be sufficiently plausible for use in monitoring by funding organizations. In any case, indicators must be clearly related to the achievement of the objective which is being evaluated.

An important element of plausibility is operationality. An indicator is expressed operationally if it can be clearly determined that the indicator has or has not been achieved. This is generally done by agreeing upon a common and clear definition of achievement before the fact. Quantification of clearly defined items is usually an operational approach but there are several others. An indicator can be subjective, but still be operational if a person or process is specified for making the necessary judgement.

Measurability is important since the most plausible indicator is useless if no data can be obtained which addresses it. Indicators like income are quantifiable, but notoriously difficult to obtain credible data about. Others, like "satisfaction" are sometimes difficult to relate to any actual data, even when it can be obtained. Indicators need to be represented by some element which can be counted or evaluated in the real world.

Efficiency refers to the relative cost/benefit of collecting data on indicators. The objective is to use the smallest number of indicators possible to achieve what is needed. Indicators which measure more, or measure central factors considered most important without needlessly complicating data collection activities. Indicators for which data is already being collected are clearly efficient in an administrative sense; and, obviously, indicators for which data is useful and which can be collected at low cost and/or effort are also clearly efficient. These elements of efficiency are of great importance in projects with limited resources available for monitoring, and especially for indicators which are to be put to use after termination of project activities and budgets.

There are two special types of indicators which are useful to consider: proxy indicators and leading indicators.

Proxy indicators are used when the actual measure of something is unavailable or difficult to collect reliable data on, as in household income. Income data, for example, is notoriously difficult to collect as it is regarded by survey respondents as sensitive information. It can fluctuate widely over short periods of time (especially for the poor), and it involves problems when measuring the income of self-employed workers. Household consumption data is favored as a proxy measure of income as it is not regarded as sensitive as income information, it does not fluctuate as widely and therefore is a more stable measure of living standards, and it avoids problems encountered in measuring the income of self-employed workers.

Leading indicators are useful when desired impacts are not anticipated for some time to come. The concept is drawn from macro-economics where, for example, wholesale prices have been shown to have predictive value for the consumer price index. In monitoring development projects, social scientists are interested in data that can "signal" implementation problems impeding project performance, or the emergence of effects that depart from those postulated in the project design, as well as data that has predictive value for positive future impact.

### Conceptual Model

As the consultancy process was discussed and analyzed, it was determined that it would be useful to develop a model to help generate from the meetings the type of indicators which were sought, and to classify those which were generated, to improve understanding among collaborating organizations. As the possible elements of the model were explored, two categories of criteria emerged:

1) Level of Impact - This represents the distinctions generally taken into account as one goes up the vertical dimension of the logical framework from a lower to a higher level of objectives. In this context, output-level indicators are referred to as "results." These are the expected direct outcomes of project work, e.g., workshops, trees, buildings, trained participants, etc. These are the most common in the A.I.D. system, and generally are the easiest to tabulate and measure.

Purpose-level indicators are referred to as "impact." It is this level which is the real focus of this exercise. The indicators at this level respond to the question, "so what?" regarding successes at output levels, to refer to the potential development impact of successful project activities. Evidence of that kind of impact at the highest levels (goal level), such as changes in production and/or income on a national scale, is often measurable through available data. However, a common problem with this level of indicator is demonstrating credibly in its attribution to the activities and results of the project. The real challenge of this exercise, and the most useful meaning of impact indicators which resulted, is the identification of indicators which are significant enough to answer the question, "so what?" and sufficiently related to project activities and results to be credibly attributable to them.

As will be seen in the reviews of the individual projects, this was a challenging task. As the model was shared and discussed with ROCAP and staff of the various projects, the suggestion was made to expand the model by further differentiating higher and lower levels of impact. This resulted in the creation of three vertical levels in the model by the addition of a lower level of impact, known as "effect."

2) Programmatic vs. institutional development - All, or almost all of ROCAP's projects have as a significant part of their objectives, developing the institutions of the region. This involves the strengthening of both the grantee (Central America region-serving) institutions themselves and of the national institutions which are expected to carry on over the long run many of the activities developed by the projects. This part of the model began by separating indicators on the "programmatic" side (defined as aspects of the project affecting entities outside the project), from the "institutional development" side (defined as aspects of the project affecting the institutions themselves which actually are carrying out the project activities).

As the individual projects were discussed, in some instances the effects of project activities on other institutions were interpreted as one aspect of programmatic results; in other cases they were considered an aspect of the strengthening of collaborating institutions, i.e., part of the institutional development side of the model. This seemed consistent with the model, leaving this interpretation up to the project team. As work on developing indicators proceeded, however, it appeared that a preponderance of indicators relating primarily to the development of collaborating national institutions were being identified, at the expense of indicators relating to the strengthening of the grantee institutions themselves. For this reason, it was decided to further expand the model by separating these two potential institutional development dimensions.

The original model/matrix looked like this:

	Programmatic	Institutional Development
Impact		
Results		

The modified version became:

	Programmatic	ID (external)	ID (grantee)
Impact			
Effects			
Results			

Reference was also made in the meetings to "global impact" (pertinent national trends) that were viewed as an additional level above the entire model to distinguish country trend indicators from measures of impact attributable to project interventions. The purpose of the model was to facilitate the meetings of the project teams by providing a conceptual framework that would encourage attention in two often neglected areas: indicators of impact, and indicators of institutional development regarding the grantee institution.

The meeting process which was developed by the consulting team and principal client involved several steps: First, there was a presentation of the purposes and approach of the indicators exercise, in the specific context of the individual project and institution, followed by a question/discussion period. Next, the model was presented, with its background and an overview of some related issues, and discussed in the context of the specific projects concerned. That context involved areas such as (a) the stage of the project's life; (b) possibilities for funded follow-up activities; (c) possible differences in perspective among members of the project team and/or between the project team and ROCAP, regarding the project's goals and priorities; and (d) the extent to which the project fit into the larger mission of the grantee institution.

The sessions produced in each case draft sets of indicators in the various quadrants of the matrix for each project. Plans were next made for the project teams alone, then with ROCAP staff, to decide on indicators which would form part of the project reporting system. Consultants were asked for (and have provided) feedback on the technical quality of those draft indicators, and the process for finalizing the indicators and reporting system. These indicators and feedback are included in the next section of this report. At the time of the writing of this report, the projects are in various stages of this process, and ROCAP is making its own decisions on its intentions for the ultimate use of this information.

### The Process of Developing Indicators

Keeping in mind the characteristics of good indicators, it is also necessary to focus on the collaborative process of indicator development itself. For example, in the case of CATIE, both within CATIE, and between CATIE and ROCAP, this meant the involvement of all those involved in the implementation of the project so they will truly believe that the indicators are worth gathering (rather than an additional requirement imposed from above or outside), and so that the indicators developed address the information needs of those directly involved, as well as those outside the project.

We believe that ROCAP should continue a collaborative approach because that is more important that the process be internalized within the Central American organizations than it is to gather indicators which only meet ROCAP or A.I.D./W preferences and needs. This is particularly true for indicators which are to be tracked beyond the project life.

Next, it is important that the indicators be clear, with respect to definition and how they are to be measured. The inability to clarify indicators is often related to uncertainty or lack of common agreement regarding elements of the project design. As the project moves through implementation and begins to show outputs, effects, and impact, the selection of indicators provides an opportunity to define clearly just what the project is intended to accomplish at various points in time.

It is also important to determine for whom and for what use the indicators are being gathered. In the case of the two CATIE projects, the focus has been on providing information to senior management of the regional institutions and ROCAP. People at this level tend to be interested in performance and impact rather than detailed monitoring of activities and results. More detailed and frequent information will be needed by project officers and other members of the implementation team.

Finally, the process should be efficient. It should be conducted quickly and not bog down in a search for perfect solutions. The process of selection of proposed indicators should not take over a month, and the process for reaching final agreement with ROCAP not more than an additional month, allowing time for preliminary agreement, some reflection in between, and a second meeting to reach final agreement.

Whether the indicators should place heavier emphasis on the output or purpose levels will depend in large part on the stage of project implementation. For example, in the case of Watershed Management, which is virtually completed, the emphasis should be on future impact; in the case of Tree Crops, senior management will be interested in successful project implementation as well as future impact. Generally, indicators must be gathered with more frequency during project implementation (perhaps every three to six months) than after the "life of the project" (when semi-annual or annual gathering and reporting should be sufficient).

It is strongly suggested that indicators be selected which are relatively easy and inexpensive to gather. This is partially because little money will be available for this purpose and partially because both management and those involved in implementation of these projects will be deeply involved in new projects - with little time or energy for reviewing anything more than the highlights of completed projects. While qualitative indicators may be used whenever they are clearly preferable to quantitative indicators, the latter have the advantage of clarity, presumed objectivity, and comparability over long periods of time.

### The ROCAP Workshop

The last event of the indicators exercise was a workshop for ROCAP staff. The workshop was intended to provide an opportunity to share the results and lessons learned from the indicators exercise, as well as other useful material on indicators which might be of benefit to the group. It was intended to be both didactic and interactive around some of the issues related to indicators within ROCAP. These varying needs suggested a mix of approaches. Also, the potential participants varied considerably, with regard to experience with an interest in management indicators, and with regard to their level of awareness and involvement in the indicators exercise itself. Several staff members, in addition to the evaluation officer, had participated actively in the process, while others were hardly aware that the exercise had been taking place.

It was decided to combine a general presentation, a discussion of how general issues applied (or not) to the ROCAP situation, and some more focussed skill-building. Though the five hour session seemed short for so many uses, it seemed important to at least begin to address all these areas.

The session included a short opening discussion led by Mission Director Nadine Hoganon on the place of the exercise in the ROCAP Mission. Some staff members had expressed concerns about the exercise and how it might fit into the management of Mission projects. It was thought useful to clarify any false impressions and insure that concerns were clearly registered in order to create the best context for the rest of the session. This was followed by a lecture and considerable discussion, led by MSI President Larry Cooley; an overview of the events of the exercise, the results to date, and outstanding issues by Alan Hurwitz; a discussion on issues which needed to be addressed within ROCAP, led by Pirie Gall; and (after lunch) an exercise by Roger Popper on choosing and refining appropriate project indicators.

The ROCAP group identified the following as "Next Steps and Underlying Issues" for itself to address:

1. Which CA/P Institutions should ROCAP follow up with and when
2. Levels of impact reporting:
  - a. CA/P Institutions to ROCAP
  - b. ROCAP to AID/W, to Congress, and to others
3. Substitute or Supplement in Reporting
4. Programming vs. Institutional strengthening dimensions of reporting
5. Relationship to Original Design/Logframes
6. Purpose/Goal Level or Output (Operational) Level
7. Project Level/Program Level
8. Attribution at Goal/Impact Level
9. Regional Progress Indicators (Macro)
10. Accounting for other Relationships of Regional Institutions (countries, other donors)

These issues touch on many issues of general and strategic significance for ROCAP. Indicators often open up many larger issues as people address the basic problems of how to define goals and targets, and how to measure the effectiveness of what they do. This session gave the group an opportunity to list in a more ordered way some of the concerns which were expressed at the beginning of the seminar and form an agenda

for future action. MSI'S point of view regarding outstanding ROCAP issues related to indicators appears in Sections 5 and 6 of this report.

### Emerging Issues Regarding Indicators

Several issues emerged from the interviews and meetings regarding the development and use of indicators.

1. Identifying Information Users and Needs. The degree of specificity which is needed for indicators varies greatly depending on whether they are to be used for detailed monitoring or for periodic overviews. It was decided that the indicators to be developed should be focussed on the needs of top management of the Central American institution and ROCAP and that the number of indicators should be kept to a minimum (not more than two for each cell of the matrix). More detailed indicators (in one case almost one hundred) to be used by those responsible for detailed project implementation are already called for in Logical Frameworks and periodic progress reports.

It was felt that the impact indicators should be reviewed jointly by the management of ROCAP and the Central American institutions along with other available information to determine whether the project is having the desired impact over time. This information can be of great value in designing future projects and informing AID/W and Congress of longer-term results.

2. The status of the CABEI Housing and Urban Development project. Because ROCAP and RHUDO were actively engaged in discussions on modifications of this project during our consultancy, it was decided by ROCAP that our meetings with CABEI would be premature. Instead, we reviewed with ROCAP and RHUDO the indicators we had developed on the project paper and implementing documents. These discussions proved useful in determining the extent that proposed changes might change project purposes. This collaboration seemed to be regarded as helpful by both ROCAP and RHUDO officers.

3. Use of A.I.D. Project Documents. We found the A.I.D. project paper to be the most useful document to develop the type of indicators sought by the exercise. In particular, the logical framework, project description, description of components, and institutional analysis were the most useful sections, although inconsistencies among these sections were not unusual. Also, we found that the project was often and understandably modified in implementation, and that the focus had often changed. Thus, the documentation was not as useful as anticipated, particularly as we sought to push beyond output or result level indicators. In effect, what has emerged is a simplified logical framework for tracking the project beyond its official termination.

4. Institutional Relationships. The nature of our consultancy varied considerably according to the particular individual histories of the Central American institutions and their relationship to ROCAP. Organizations such as INCAE and INCAP are older institutions accustomed to internal reviews of this sort, while CATIE is newer and still trying to

develop institutional capacity. Each institution also has a different relationship with ROCAP -responding differently to their varying but continued heavy financial dependence.

5. Stages of Project Maturity. Projects varied greatly from those just beginning implementation (e.g., CABEI) to those that were almost completed (e.g., CATIE Watershed Management). For projects in early stages that was a natural tendency to focus on the results or output level, while for those nearly completed the working groups naturally focused more on effect and impact levels. We encourage the latter approach, since a system already exists for assuring gathering of output/results data throughout the life of the project. We also emphasized that the key indicators will change over the life of the project. During the first year or two attention must be paid to input indicators, as the project matures attention will shift to output and effect indicators, and at the end the focus should be on effect and impact indicators, and ultimately the projects contribution to more global impact levels.

### 3. PROJECT REVIEWS

The Central American Shelter and Urban Development project was authorized in 1986, and was originally scheduled to be completed (PACD) in 1991. It has multiple sources of A.I.D. funding which include grant, loan, and housing guarantee funds totalling \$64 million. The goal of the project is to improve the shelter conditions of low income families in Central America.

As is typical of many ROCAP projects, its purpose is twofold: 1) a physical or programmatic objective of producing some 10,000 low-cost housing units and the provision of water, sewer and other community improvements to some 145,000 families; and 2) institutional development and policy objectives as well. These include the restoration of financial stability to CABEI's Housing Fund and improved cost recoveries, streamlined financial management by CABEI and national institutions, and an increased role for the private sector in construction of low cost shelter and facilities.

The project has been very slow to get started, in part because of delays in meeting Conditions Precedent and increasing doubts about CABEI's ability to bring about changes both internally and within the national institutions. At the start of MSI's consultancy, ROCAP and RHUDO were discussing proposed changes in plans for implementing the project. It was therefore felt by ROCAP and RHUDO to be premature for the MSI team to discuss indicators with CABEI.

The MSI team's role then became one of reviewing with ROCAP and RHUDO project officers the preliminary programmatic and institutional development indicators being developed. The team explained the indicators and discussed with the staff the extent to which the proposed implementation plan changes might necessitate revisions to these indicators. However, since the MSI team's focus was on the proposed results and impact of the program, implementation changes were not dealt with directly since they are seen as the means to the ends, on which this analysis was really focussing. ROCAP and RHUDO concluded that the revised indicators seemed appropriate and that the proposed implementation plan changes would have little or no effect on those indicators.

The indicators place heavy emphasis on policy changes and financial viability at the impact level, and physical outputs and increases in efficiency at the results level. One element which occurs in several of the projects examined was demand for the services of the Central American (CA) institution as an indicator of acceptance and long-run viability. Financial viability or sustainability, given the heavy dependence of CA institutions on ROCAP, was also a recurring theme in indicators which developed.

The Tree Crop Production and Regional Tropical Watershed Management projects were discussed on two successive days with CATIE working groups as well as the ROCAP project officers and the Evaluation Officer. The approach used was to first explain the collaborative nature of the exercise which entailed people responsible for project implementation developing their own indicators. The CATIE working groups were then briefed on the methodology (the attributes of good indicators and the matrix as a tool) and a brainstorming session was held for the project officers to develop possible indicators for the various cells of the matrix.

The Tree Crop Production project was authorized in 1985 and will be completed in 1991. ROCAP's contribution is a \$9 million grant. The purpose of the project is to strengthen the capabilities of CATIE, public and private forestry extension services, educational institutions, and extension organizations, to access, promote, and disseminate on-farm tree crop technologies to benefit small and medium sized farmers and rural industries. A recent evaluation concluded that higher priority should be given to disseminating available information and to developing practical publications.

Given the somewhat critical tone of the evaluation, there was initially some reluctance to undertaking another "exercise" of self-examination. Also, like this exercise the evaluation was presented as collaborative in approach, but it did not prove to be so in practice. At least it was not seen as such by CATIE and the project team. Once the MSI consultancy started, this attitude gradually gave way to increasing enthusiasm toward focusing on ways to measure whether or not this project would have long range impact. Because of other commitments of CATIE staff, it was only possible to complete the first stage of identifying a large number of possible indicators, without the opportunity to prioritize them and select a few of the best indicators for actual use; nor was there an opportunity to discuss in any detail how data for these indicators would be gathered. The group and ROCAP staff scheduled dates for follow-up meetings to continue and finalize this process.

In the course of developing the indicators, it was noted that the participants focused almost entirely on institutional development of the national institutions, rather than institutional strengthening of CATIE itself. It was concluded that use of the four cell model matrix tended to reinforce this tendency which led to the decision to use a nine cell matrix to differentiate between institutional development of the Central American and national organizations.

Given the lack of time to complete the selection of indicators, the MSI team offered to make observations and suggestions which could then be used in follow-up by CATIE and ROCAP. General guidance on criteria for effective indicators and on the process for developing indicators is attached as Annex 2 of this paper. Specific observations for follow-up work by ROCAP staff and each project team is attached as Annex 3.

**TABLE 3.1: TREE CROP PRODUCTION**

**(Product of Meeting with Project Team)**

PROGRAMMATIC	INSTITUTIONAL DEVELOPMENT
<b>IMPACT (Purpose)</b>	
<ol style="list-style-type: none"> <li>1. Degree of adaption--number of adaptors</li> <li>2. Nurseries in production</li> <li>3. Accepted production plans using growth models</li> <li>4. Increase in income of adopters</li> <li>5. Increase in productivity of multiple-use trees</li> <li>6. Investments in reforestation using multiple-use tree technologies</li> <li>7. Incremental changes in production in species involved in the program</li> <li>8. Percentage of terms utilizing multiple use trees</li> <li>9. Improved quality of life for adopters</li> </ol>	<ol style="list-style-type: none"> <li>1. H.S. graduates &amp; seminar graduates working in positions related to multiple-use trees</li> <li>2. Multiple-use tree projects initiated</li> <li>3. Number of stable research and development programs in CATIE and national institutions for multiple-use trees</li> <li>4. Small farmers participating in reforestation using multiple-use trees</li> <li>5. Increased financial resources for multiple-use tree projects               <ol style="list-style-type: none"> <li>a) National</li> <li>b) International</li> </ol> </li> <li>6. Existence of incentives for adaption of multiple-use trees</li> </ol>
<b>RESULTS (Outputs)</b>	
<ol style="list-style-type: none"> <li>1. Number of producers participating</li> <li>2. Number of species evaluated</li> <li>3. Means of dissemination</li> <li>4. Number of training courses</li> <li>5. Growth models for 14 species</li> <li>6. Graduates or M.S. programs</li> <li>7. Number of hectares seeded with multi-use trees</li> <li>8. Number of communities visited</li> <li>9. Number of demonstration sessions</li> <li>10. Amount of money invested</li> <li>11. Number of professionals participating in the project</li> </ol>	<ol style="list-style-type: none"> <li>1. Number of publications produced on multiple-use trees</li> <li>2. Number of trained technicians working in jobs related to multiple use trees</li> <li>3. Number of national counterparts working in the project</li> <li>4. Number of demonstration plots maintained by CATIE, the LA governments, and producers</li> <li>5. Multiple-use tree projects identified by governments</li> <li>6. Number and quality of studies or incentives to grow multiple-use trees</li> </ol>

The Regional Tropical Watershed Management project was authorized in 1983 and was originally planned to be completed in 1988. The completion date was extended until the end of 1989. ROCAP is contributing a grant of \$6 million to the project which has the goal of protecting the environment and conserving natural resources, with special emphasis on water management. The purpose of the project is to improve institutional capacity in Central America to manage the region's watershed resources. A recent evaluation was quite favorable, although it emphasized the continuing need to convince decision-makers at the national level of the importance of watershed management and the need to make additional resources available.

The team modified its approach in working with the CATIE and ROCAP project officers on this project. The expanded matrix was used in order to ensure that adequate attention would be paid to CATIE's institutional development and sustainability, as well as focusing on strengthening national institutions.

As in the case of the Tree Crops project, the group was urged to brainstorm to develop a large number of potential indicators. In fact, thirty-six possible indicators were suggested, most of which were at the results or output level. Given that this project is almost completed, it was felt desirable to concentrate in the second stage of refinement and selection on indicators at the effect and impact levels. This resulted in preliminary selection by the group of 11 indicators at these higher levels. The second-stage indicators selected by the CATIE working groups are shown below and further suggestions for indicator development are presented in the next section.

The Regional Export Management Training project implemented by INCAE, was authorized in 1985 and is scheduled to be completed in 1990. ROCAP is providing a grant of \$6.8 million for the project, which has the goal of stimulating export-led economic growth in Central America by training current and future managers, and by encouraging policy reform with particular reference to non-traditional exports. The purpose is to strengthen INCAE's capabilities in the areas of export management training, assistance to other schools of business/management in the region, and inter-sectoral policy dialogue.

This project is similar to the other projects reviewed in several respects. First, it combines programmatic objectives (training and policy related) with national and regional institutional development objectives. Second, it is at times difficult to determine the extent to which ROCAP's support is intended as continued assistance to a Central American institution which cannot survive without that support, and the extent to which the purpose of the project is to effect on-going effects in Central America. This, in turn, raises an issue typical of many ROCAP supported projects when there are so many cause and effect linkages between the intervention at the regional level and the ultimate impact on targeted beneficiaries that it is difficult to trace or attribute the role of the Central American institution in achieving changes in national institutions, policies and ultimate beneficiaries.

**TABLE 3.2 REGIONAL TROPICAL WATERSHED MANAGEMENT**

**(Product of Meeting with Project Team)**

PROGRAMMATIC	NATIONAL INSTITUTIONS	CATIE
<b>IMPACT (Purpose)</b>		
<ol style="list-style-type: none"> <li>1. Number of watershed management projects in execution</li> <li>2. Bankable plans in execution— with goal or at least one initiated in each LA country within period of two years</li> </ol>	<ol style="list-style-type: none"> <li>1. Larger amount of budget made available each year for watershed management</li> <li>2. Percentage of the budget of percent organization devoted to watershed management in each country</li> <li>3. Permanent watershed management institutions with:                             <ol style="list-style-type: none"> <li>a) Law or decree establishing mandate</li> <li>b) Qualified personnel</li> <li>c) Operational funds available</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Percentage of mandate achievement</li> </ol>
<b>RESULTS (Outputs)</b>		
<ol style="list-style-type: none"> <li>1. Number or percentage of M.C. graduates working in positions related to watershed management as determined by national commissions</li> </ol>	<ol style="list-style-type: none"> <li>1. Number of persons in national institutions working in project-supported units measured by:                             <ol style="list-style-type: none"> <li>a) professionals who are academically qualified</li> <li>b) man hours devoted to watershed management projects</li> <li>c) Projects implemented with government guarantees as a percentage of the total number of projects</li> </ol> </li> <li>2. Number of preliminary studies demonstrating viability as measured by:                             <ol style="list-style-type: none"> <li>a) IRR or cost-benefit ratio</li> <li>b) percentage of local financing devoted to study and project</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Development of programs involving several elements of CATIE—measured by funds and personnel</li> <li>2. Implementation of CATIE's 10-year strategic plan.</li> </ol>

**TABLE 3.3 REGIONAL EXPORT MANAGEMENT TRAINING PROJECT**

**(Product of Meeting with Project Team)**

PROGRAMMATIC	NATIONAL INSTITUTIONS	INCAE
<b>IMPACT (Purpose)</b>		
<p>1. Changes in sales or non-traditional exports</p> <p>2. Number of firms engaging in non-traditional exports</p>	<p>1. Persons trained by INCAE working in export industries</p> <p>2. Number of clients who are involved in exports</p>	<p>1. INCAE recognized as forum for discussing export policies and strategies—measured by:</p> <ul style="list-style-type: none"> <li>a) Support from international organizations</li> <li>b) Demand from C.A. governments</li> <li>c) Questionnaires to participants</li> </ul> <p>2. INCAE recognized as center of knowledge about exports—measured by:</p> <ul style="list-style-type: none"> <li>a) Invitations to give talks, papers</li> <li>b) Requests for seminars</li> <li>c) Testimonials</li> <li>d) Requests for help from L.A. universities</li> </ul>
<b>RESULTS (Outputs)</b>		
<p>1. Improved incentives for exports as a result of seminars—e.g. a single window for exporters</p> <p>2. Changes by firms as a result of seminar—measured by surveys</p> <p>3. Development of producers interest in export markets as shown by:</p> <ul style="list-style-type: none"> <li>a) Locating the new markets</li> <li>b) Developing new products</li> <li>c) Qualitative improvements</li> <li>d) Business trips abroad</li> <li>e) Joint ventures</li> </ul>	<p>1. New activities promoted by governments:</p> <ul style="list-style-type: none"> <li>a) Laws/decrees</li> <li>b) Programs</li> <li>c) Policies and universities</li> <li>d) Courses</li> </ul> <p>2. Greater activity or changes in institutions as indicated by:</p> <ul style="list-style-type: none"> <li>a) Cases</li> <li>b) Books</li> <li>c) Articles</li> <li>d) New methodologies</li> <li>e) Persons trained</li> </ul>	<p>1. New programs related to exports</p> <ul style="list-style-type: none"> <li>a) Number of programs</li> <li>b) Quality evaluated by C.A. deans</li> </ul> <p>2. Changes in content or residential programs:</p> <ul style="list-style-type: none"> <li>a) Number of new cases incorporated in courses</li> <li>b) Evaluation of quality of courses</li> </ul> <p>3. Development of Conceptual Schemes</p> <ul style="list-style-type: none"> <li>a) Articles and books accepted for publication</li> <li>b) Reviews of published articles by people not at INCAE</li> </ul>

Although the INCAE staff was also somewhat unhappy about a recent evaluation which had been less collaborative than anticipated, they welcomed the opportunity to develop indicators, partially because of their Director's interest in such indicators to measure results and demonstrate INCAE's regional impact. Thus, there was lively and enthusiastic participation by INCAE staff responsible for project implementation.

The day and a half devoted to analyzing the project gave adequate time for the INCAE staff to reflect on indicators. However, somewhat to the MSI team's surprise, the members of the staff concentrated almost exclusively on individual components for which each manager was responsible, rather than on the project in its entirety. Only when the group passed from the brainstorming stage, which produced over 100 possible indicators, to the refinement stage was it possible to focus on the purposes of the project as a whole.

As in the case of the CATIE Watershed Management project, the MSI team chose to focus only on effect and impact levels during the refinement stage. When time ran out, these had been reduced to about 14 probable indicators, which are reproduced on the next page. The INCAE project leader assumed the responsibility for further refining the indicators and requested that the MSI team provide its reactions and suggestions, as was done in the case of the CATIE projects. The preliminary indicators developed by INCAE appear on the next page.

The Technical Support for Food Assistance Programs project was authorized in 1985 and was originally planned for completion in 1989. ROCAP's funding was originally a \$5.6 million grant, a sum which was subsequently increased through amendments in 1986 and 1987 to total \$6.1 million. The purpose of the Food Assistance project is as follows:

"To improve the effectiveness of food assistance activities in the Central America/Panama region by helping to establish effective national coordination mechanisms and by strengthening the technical, managerial and evaluation capabilities of INCAP and national public and private agencies."

The project has two levels of emphasis, at the national policy and at individual food program levels. At the national policy level, intervention consists largely of the development of guidelines for national strategies, plans and policies, and establishment of coordination mechanisms. At the individual program level, the project consists largely of applied research, training and information dissemination regarding planning and management of food programs. Technical Assistance staff FOOD includes a Food/Nutrition planner, an Operations Research expert, and a Public health expert with an education and training focus.

A recent evaluation concluded that the Food Assistance project means a change in orientation for INCAP from basic research toward applied research and a focus on operational matters. Accomplishments as of January 1989 have included: establishment of a regional technical advisory committee, technical assistance to individual countries,

**TABLE 3.4 FOOD ASSISTANCE INDICATOR IDENTIFICATION MATRIX**

**(Product of Meeting with Project Team)**

	<b>PROGRAM</b>	<b>INSTITUTIONAL DEVELOPMENT (EXTERNAL)</b>	<b>INSTITUTIONAL DEVELOPMENT (INTERNAL)</b>
<b>SUPER IMPACT</b>	Infant/child mortality Infant/child morbidity Infant/child malnutrition		
<b>IMPACT</b>	Efficient programs Effective programs Improved projects	Reduced duplication of effort Strategies and policies implemented permanently Integration of food assistance with other components Demand for services Financial probability	New INCAP role More operational, less research oriented Widening of field of activity Incorporation of nutrition area
<b>EFFECTS</b>	Arrival of food Quality of food Food management Food storage Reduced food loss Quality control	National policies adopted National, regional coordination Shared resources International conferences Integrated, approaches, designs School decrees	New INCAP knowledge, skills New INCAP personnel INCAP expertise in the nutrition areas Expertise in applied, operational areas
<b>RESULTS</b>	Adjustment of norms Technologies adopted  Information dissemination Technical packages Tests of new mixtures Adaptation of technology Applied Research findings	Policy and strategy guidelines National personnel trained International form	Personnel INCAP trained in applied research New INCAP personnel

workshops and scholarships, creation and data bases covering documents and resource people; and dissemination of documents to a large number of people.

During discussion with INCAP, it was emphasized that our indicator development exercise would contribute to an objective-setting process already underway within INCAP. The Food Assistance project's role was seen as moving food programs from mere "efficiency" food delivery toward "effective" use of food as a development tool. The following eight programs or "axes" of the Food Assistance project were identified:

1. Establish and nationalize food distribution policy;
2. Search for and creation of coordination mechanisms;
3. Dissemination of technical and scientific information;
4. Improve the technical quality of national food program personnel;
5. Modifications in the design, monitoring, and evaluation;
6. Improvement in information systems;
7. Help countries understand costs, and social and economic impact of food assistance; and
8. Strengthening of INCAP as an applied research, and provider of technical assistance in operational matters.

For both the INCAP projects, the indicator development process involved three steps. First the relationship of the project to "the matrix" was explored. Second, the full group gave their ideas for indicators to fill the full matrix. Finally, the group split up into smaller units to work on individual columns of the matrix. The following tables attempt to summarize the results of the three exercises. This table is meant as a training tool, and has no official standing. Some observations conveying the sense of the matrix are as follows:

- The entries in the matrix tend to describe general objectives rather than precise, measurable indicators. This means merely that the indicator development process is not complete. Indicator development requires going through a process beginning with general objectives, proceeding to specific objectives, and then quantifying the objectives in the form of measurable indicators.
- The group felt that all three columns (program, and external and internal institutional development) converge on a "super impact" consisting of improvements in infant and child health.
- In the program column, the project's outputs consist largely of training modules and technical packages leading to improved knowledge and skill levels among doctors, nurses, pharmacists and NGO personnel, which in turn leads to improved management practices regarding Oral Rehydration, growth monitoring and the management of diarrhea and malnutrition cases.

- In the external institutional development column, outputs consist largely of analyses of national organizational, and management problems leading to better within-country and regional coordination, which in turn leads to decentralization, reduced duplication effort, and adoption and implementation of policy.
- In the internal institutional development column, outputs consist largely of INCAP analyses of INCAP's current situation which leads to improved INCAP knowledge and skills in "institutional survival" areas which in turn leads to improved financial stability based on diversity of project types, and funding sources.

Oral Rehydration Therapy Growth Monitoring and Nutrition Education Project (INCAP)

The ORT, Growth Monitoring and Nutrition Education Project referred to here as the Child Survival Project was authorized in 1984 and was originally planned for completion in 1989. ROCAP's funding contribution to the Child Survival project was \$8 million and the project has been extended until 1990 to coincide with five-year national child survival plans formulated with project assistance, and augmented to include a Vitamin A component. The project purpose, as stated in the Project Paper, is as follows:

"To increase effective use of oral rehydration therapy, growth monitoring and appropriate related feeding practices in Central America and Panama."

INCAP does not participate directly in service delivery, or in training to mothers. Rather, INCAP supports child survival services through such interventions as: promotion of effective national strategies and plans; strengthening of health service delivery and information systems; improvement of professional, para-professional, community skills, and public education; and, distribution of scientific and technical information. Since INCAP's relation to feeding practices is indirect, the above "Purpose" is perhaps overly ambitious. A more appropriate Purpose statement is found in the Project Paper as an "indicator" of Purpose, and reads as follows:

"Improved national capacity to plan, implement and evaluate programs aimed at control and treatment of diarrheal diseases, growth monitoring and related health/nutrition education."

**TABLE 3.5: CHILD SURVIVAL INDICATOR MATRIX**

**(Product of Meeting with Project Team)**

	<b>PROGRAM</b>	<b>INSTITUTIONAL DEVELOPMENT (EXTERNAL)</b>	<b>INSTITUTIONAL DEVELOPMENT (INTERNAL INCAP)</b>
<b>SUPER IMPACT</b>	Reduction in infant mortality		
<b>IMPACTS</b>	<p>Better management and treatment by doctors, nurses, pharmacists, NGOs infant/child malnutrition; diarrhea, feeding problems</p> <p>Increased coverage by: OPT, Growth Monitoring Nutrition education programs Use of new, better methods by health centers</p>	<p>Decentralization of training implemented Reduced duplication of effort among donors</p> <p>Adoption, implementation of policies</p>	<p>Financial stability Diversification of funding services New applied research activities financed</p> <p>Reorientation of INCAP toward operational activities Increased proportion applied to basic research Increased participation of INCAP in national food/nutrition policy</p>
<b>EFFECTS</b>	<p>Better knowledge and skills of doctors, nurses, pharmacists, NGOs regarding: infant/child malnutrition; diarrhea, feeding problems, communication/education techniques</p>	<p>Donor coordination Donor personnel trained in common Horizontal cooperation Training guidelines in common among countries</p>	<p>INCAP personnel knowledge, and skills in: Applied research design, Economic dependency problems How to qualify for funds, resources, Regional supply, demand for health, nutrition services</p>
<b>RESULTS</b>	<p>KAP modules Infant Survival modules Methods in case management "Cursillos a distancia" New, adapted technology</p> <p>Applied research findings Statistical packages Basic research in diarrhea management</p>	<p>Analysis of national health and nutrition organizations resources, skills, personnel, problems</p>	<p>INCAP analysis of: INCAP economic dependency; Regional supply and demand for health, nutrition services; INCAP resource allocation across areas;</p> <p>Training INCAP personnel in applied areas</p>

During meetings with the INCAP team, it was suggested that a new project Logical Framework might be warranted. The major difference between the Project Paper's Logical Framework and the INCAP team's description centers on the above-mentioned indirect nature of the child survival intervention. In addition, applied and basic research have become more important during implementation than described in the Project Paper as USAID Missions in the region have recently taken responsibility for delivery of oral rehydration salts. One of the ROCAP project officers noted the substantial conceptual gap in the Logical Framework between the operations and the health impact goal. These issues warrant further examination in the forthcoming mid-term evaluation.

#### 4. SUGGESTED GUIDELINES FOR INDICATORS

The Food Assistance and Child Survival projects are discussed in tandem because they appear to have parallel logic and structures. In terms of their Logical Frameworks, both projects have:

- Infant and child mortality, and nutrition health, at the Goal level;
- Improvement of Central American capacity to plan, and implement programs at the Purpose level; and
- Training, applied research, information dissemination, policy dialogue, and creation of consensus and coordination mechanisms at the Output level.

Tables 4.1 and 4.2 provide guidance on translating general objectives cited in Project Paper Logical Frameworks into measurable indicators. Note that country trend and output level objectives have been omitted to focus on the development purpose-level performance indicators. Column one of the tables attempts to provide a restatement of purpose-level objectives with a greater degree of specificity to guide the formulation of End-of-Project Status (EOPS) indicators. Since good indicators address the quantity, quality, and time aspects of an objective, the second column identifies data needed for these dimensions of purpose-level objectives associated with each project. Column three gives an assessment of the difficulty of data collection and suggests possible data sources.

An objective tree analysis revealed that to monitor purpose-level performance of INCAP projects, indicators should be developed that focus on the following (in descending order along the vertical axis of the objective tree):

- service delivery to vulnerable groups;
- management and policy practices, and;
- installed national capacity.

Performance variables involved in service delivery to vulnerable groups appear to include:

- geographic coverage;
- coverage of special vulnerable groups, such as refugees, rural and urban poor;
- food quality;
- decreased food loss; and
- decreased incidents of arrival of food to non-targeted groups.

**TABLE 4.1: FOOD ASSISTANCE PROJECT**  
**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<b>C. SERVICE DELIVERY TO VULNERABLE GROUPS</b>		
<b>1. COMMODITIES</b>		
Geographic coverage Vulnerable groups coverage Decreased food loss Decreased arrival to wrong groups Food quality	Quantity: Solution to specific food quantity, coverage problems Quality: Solution to specific food quality problems Time: By when will the above	Promising: 1. Food tracking system developed in Bolivia 2. Assessment methodologies developed by the project
<b>2. INFORMATION, TRAINING</b>		
Geographic coverage Vulnerable groups coverage Food, nutrition topics Training quality Integration with food delivery	Quantity: How many of what food recipients receive what information? Quality: What skills are and are not absorbed?	Moderately difficult: Testing program for food _____ receiving training
<b>D. MANAGEMENT AND POLICY</b>		
<b>1. PROGRAM DESIGN PRACTICES</b>		
Adherence to guidelines: Objectives Costs Constraints Plans Alternatives	Quantity: How many of the programs have adopted what design, planning practices? Quality: Program scopes, budgets coverages Time: When will what percent have adopted a minimum package of practices?	Easy: Read project plans using a check-list which embodies effectiveness guidelines developed by project

**TABLE 4.1: FOOD ASSISTANCE PROJECT (cont'd)**  
**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<b>2. PROGRAM MANAGEMENT PRACTICES</b>  Adherence to guidelines: Displaced persons, emergencies Organization and management of food assistance Food management and preservation Food and nutrition and education	Quantity: How many of the programs have adopted what management practices? Quality: Program scopes, budgets, coverages Time: When will what percent have adopted a minimum package of practices?	Moderately difficult: Periodic visits to programs, using observation and a check-list which embodies effectiveness guidelines developed by project
<b>3. GOVERNMENT POLICY IMPLEMENTATION</b>  Increased budget Projects changed, rejected	Quantity: Projects changed, new activities initiated in response to policy Quality: Scope, coverage, budget of changed, new projects Time: Target for complete policy implementation	Easy? Maybe decision makers could keep some sort of diary on projects approved, budget increases, etc.?
<b>4. DECREASED DUPLICATION</b>  Shared resources ??	???	Specification, quantification of "duplication of effort" is necessary
<b>E. INSTALLED NATIONAL CAPACITY</b>		
<b>1. PROGRAM KNOWLEDGE, SKILLS</b>  ID, design of food assistance Costs, problems, alternatives Displaced persons, emergencies Organization and management of food assistance Food management and preservation Food and nutrition education	Quantity: How many people learn what knowledges and skills? Quality: What responsibilities do the trainees have in terms of projects, coverage, budgets, etc. Time: When will a "critical mass" of national personnel be satisfactorily skilled?	Moderately difficult: A testing and perhaps even certification program for national personnel receiving training through the project

**TABLE 4.1: FOOD ASSISTANCE PROJECT (cont'd)**  
**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<p><b>2. PROGRAM ASSESSMENT SYSTEMS</b></p> <p>Nutrition status of vulnerable groups            Institutional, operational status of food aid programs            Commodities use and acceptability            Cost effectiveness of food aid</p>	<p>Quantity: What assessments have been using the methodologies?            Quality: What decisions, plans have been affected how?            Time: When will the methodologies be fully implemented?</p>	<p>Easy:            Read assessments using a check-list embodying method-developed and taught by the project</p>
<p><b>3. GOVERNMENT POLICY ADOPTION</b></p> <p>Adherence to guidelines:            Country strategies, action plans            Integration of food with FFW, school lunch, etc.</p>	<p>Quantity: How many countries have adopted policies, strategies, plans covering what activities?            Quality: Adherence to guidelines developed by project            Time: By when will the countries have adopted a minimum policy/strategy package?</p>	<p>Easy:            Read policies, plans strategies using a check-list embodying strategy and planning guidelines developed and taught by the project</p>
<p><b>4. COORDINATION MECHANISMS</b></p> <p>Political, legal authority            Respected by donors, ministries, private sector, etc.</p>	<p>Quantity: How many coordination mechanisms exist covering what donors, projects, etc.            Quality: What legal, political authority? What respect by donors, ministries, PVOs?            Time: When will there be mechanisms covering what projects and activities?</p>	<p>Legal, political authority should be easy using decrees, agreements, covenants            Whether mechanisms are respected is more difficult.</p>

**TABLE 4.2: CHILD SURVIVAL PROJECT**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION (MEANS OF VERIFICATION)
<b>C. SERVICE DELIVERY TO VULNERABLE GROUPS</b>		
<b>1. ORT, GROWTH MONITORING, ETC.</b>		
Geographic coverage Vulnerable groups coverage Quality of service	Quantity: Solution to specific coverage problems Quality: Solution to specific service quality problems Time: by when will the above problems be solved?	Possible: 1. Assessment methodologies developed by the project 2. Operations Research 3. Sentinal Areas
<b>2. INFORMATION, TRAINING IN DIETARY, DIARRHEA MANAGEMENT, ETC.</b>		
Geographic coverage Vulnerable groups coverage Quality of training, info	Quantity: How many of what types of people are trained? Quality: What skills are and are not absorbed? Time: Adherence to training schedule	Moderately difficult: Testing program for food recipient receiving training in "Sentinal Areas"
<b>D. MANAGEMENT AND POLICY</b>		
<b>1. PROGRAM DESIGN PRACTICES</b>		
Adherence to guidelines: Objectives Costs Constraints Plans Alternatives	Quantity: How many programs have adopted what design, planning practices? Quality: Program scopes, budgets, coverages Time: When will what percent have adopted a minimum package of practices?	Easy: Read project plans using a check-list which embodies effectiveness guidelines developed by project

**TABLE 4.2: CHILD SURVIVAL PROJECT (cont'd)**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION (MEANS OF VERIFICATION)
<b>2. PROGRAM MANAGEMENT PRACTICES</b>	<p>Quantity: How many programs have adopted what management practices?</p> <p>Quality: Program scopes, budgets, coverages</p> <p>Time: When will what percent have adopted a minimum package of practices?</p>	<p>Moderately difficult:</p> <p>Periodic visits to programs, using observation and a check-list which embodies effectiveness guidelines developed by project</p>
<b>3. GOVERNMENT POLICY IMPLEMENTATION</b>	<p>Quantity: Projects changed, new activities initiated</p> <p>Quality: Scope, coverage, budget of changed, new projects</p>	<p>Easy?</p> <p>Maybe decision makers should keep some sort of diary on projects approved, budget increases, etc.?</p>
<b>4. DECREASED DUPLICATION</b>	<p>???</p>	<p>Specification of "duplication of effort" is necessary</p>
<b>E. INSTALLED NATIONAL CAPACITY</b>		
<b>1. PROGRAM KNOWLEDGE, SKILLS</b>	<p>Quantity: How many people learn what knowledge and skills?</p> <p>Quality: What responsibilities do the trainees have in terms of projects, coverage, budgets, etc.</p> <p>Time: When will a "critical mass" of national personnel be satisfactorily skilled?</p>	<p>Moderately difficult:</p> <p>A testing and perhaps even certification program for national personnel receiving training through the project</p>

**TABLE 4.2: CHILD SURVIVAL PROJECT (cont'd)**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION (MEANS OF VERIFICATION)
<p><b>2. PROGRAM ASSESSMENT SYSTEMS</b></p> <p>Country assessments follow guidelines</p>	<p>Quantity: What assessments have been out using the methodologies?</p> <p>Quality: What decisions, plans have been affected how?</p> <p>Time: When will the methodologies be fully implemented?</p>	<p>Easy: Read assessments using a check-list embodying method-developed and taught by the project</p>
<p><b>3. GOVERNMENT POLICY ADOPTION</b></p> <p>Adherence to guidelines: Country strategies, action plans</p>	<p>Quantity: How many countries have adopted policies, strategies, plans covering what activities?</p> <p>Quality: Adherence to guidelines developed by project</p> <p>Time: By when will the countries have adopted a minimum policy/strategy package?</p>	<p>Easy: Read policies, plans strategies using a check-list embodying strategy and planning guidelines developed and taught by the project</p>
<p><b>4. COORDINATION MECHANISMS</b></p> <p>Political, legal authority Respected by donors, ministries, private sector, etc.</p>	<p>Quantity: How many coordination mechanisms exist covering what donors, projects, etc.</p> <p>Quality: What legal, political authority? What respect by donors, ministries, PVOs?</p> <p>Time: When will there be mechanisms covering what projects and activities?</p>	<p>Legal, political authority should be easy using decrees, agreements, covenants Whether mechanisms are respected is more difficult.</p>

Rather than measuring total commodities and treatment delivered, measures should be sought that focus on solutions to specific problems. Data collected might initially be anecdotal, and then become more rigorous as project implementors accumulate data and are able to discern recurring issues.

Components of management and policy practices expected from INCAP projects include:

- program design and planning practices;
- program management practices;
- government policy implementation, and
- decreased duplication of effort.

Potential measures for improved "program design and planning practices" might concern techniques adopted by national organizations for developing objectives, budgets, constraints analysis, assessment of alternatives and consideration of complementary activities by other organizations. Initially, potential measures might entail a checklist that would be used to check off whether project designs and plans have satisfactory objectives, budgets, etc.

Monitoring "program management practices" might involve tracking whether program guidelines are followed (since both the Food Assistance and Child Survival PPs call for the formulation of management guidelines). However, monitoring "program management practices" is admittedly more difficult than monitoring of "design and planning practices" as the latter typically involves more formal documentation requirements.

Potential measures of "government policy implementation" might involve tracking the number of projects rejected, revised, or initiated in response to the program strategy or policy.

Measurement of "decreased duplication of efforts" appears especially problematic. Available documentation does not specify evidence of the problem upon which this objective has been predicted.

Performance variables involved in installed national capacity include:

- knowledge and skills;
- program assessment systems;
- government policy; and
- coordination mechanisms.

Potential measures of "knowledge and skills" for the Food Assistance project related to training in the areas of: costs, problems and alternatives; organization and management of food assistance; food storage and preservation; and food and nutrition education. For the Child Survival project, training activities focus on: ORT, growth monitoring, and appropriate feeding practices. Measurement of "knowledge and skills" classically is carried out through testing and certification.

Potential measures of "program assessment systems" for the Food Assistance project will need to focus on: the nutritional status of vulnerable groups; the institutional and operational capacity of food and programs; commodity use and acceptability; and the cost-effectiveness of food aid. For the Food Assistant project, an important issue concerns the extent that collaborating national (and perhaps regional) agencies are using the assessment methodologies. Measurement of methodologies use would require check-lists embodying the methodologies, and reading assessment reports. Child survival "program assessment systems" concern the conduct of special input studies of project beneficiaries.

Measures of "government policy adoption" might involve reviews of annual work plans of appropriate ministries, reports by special committees charged with monitoring policy reform Conditions Precedent, consultations with key officials, and official records of policy pronouncements and legislation enacted.

"Coordination mechanisms" among donors and service providers is definitely an important aspect of the Food Assistance project, and may also be a part of the Child Survival project. Necessary pre-requisites for an effective coordination mechanisms include: legal and political authority, and respect by donors, ministries, PVOs, and the private sector. Legal and political authority of coordination mechanisms, because they exist by decree on paper, would seem to be easy to measure. Respect by the organizations they are meant to coordinate in another matter.

## CATIE

Project Purposes for both the CATIE projects involve improvement of Central American capacity to plan, and implement programs. In this respect, the CATIE projects are similar to INCAP projects discussed above. CATIE and INCAP projects all are directed at strengthening planning and implementation capacity throughout the CA/P region. All of the projects accomplish this by means of training, technical assistance, applied research, and information dissemination.

Tables 4.3 and 4.4 present alternatives for selecting and refining indicators for tracking project performance for CATIE projects. The left hand column of the tables include objectives considered to be appropriate for measuring the performance of CATIE projects. The middle column of the tables suggest possible indicators for measuring the objective, using the concepts "quantity, quality, and time". The right hand column of tables suggest possible data collection mechanisms. As shown in the tables, levels of objectives and indicators considered appropriate for measuring the performance of CATIE projects are:

- national projects and programs implemented;
- national management and policy practices; and
- installed national capacity.

**TABLE 4.3: WATERSHED MANAGEMENT PROJECT**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<b>C. NATIONAL PROGRAMS AND PROJECTS</b>		
<b>1. WATERSHED MANAGEMENT ACTIVITIES</b>		
Number of watershed management projects in execution Bankable plans in execution 1 per country in 2 yrs Local funds assigned to watershed management	Quantity: Coverage and budget of projects Quality: Type and purpose of projects Time: When will there be benefits to farmers, environment	Easy: Periodic survey of watershed projects
<b>2. INFORMATION AND EDUCATION</b>		
Coverage Topics Knowledge, skills acquired by farmers, etc.	Quantity: How many of what farmers have received what information? Quality: What skills are and are not absorbed? Time: When will a "critical mass" of farmers be taught?	Moderately difficult: Testing program for farmers receiving training
<b>D. NATIONAL MANAGEMENT AND POLICY PRACTICES</b>		
<b>2. PROGRAM PLANNING PRACTICES</b>		
Number, % projects elaborated using PRMC methodology Adoption of methods for the inclusion of costs, maintenance Adherence to guidelines derived from training, T.A.	Quantity: How many programs have adopted what design, planning practices? Quality: Program scopes, budgets, coverages Time: When will what percent have adopted a minimum package of practices?	Easy: Read project plans using a check-list which embodies effectiveness guidelines developed by project

**TABLE 4.3: WATERSHED MANAGEMENT PROJECT (cont'd)**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<b>1. NATIONAL PROGRAM MANAGEMENT PRACTICES</b>	Quantity: How many programs have adopted what management practices? Quality: Program scopes, budgets, coverages Time: When will what percent have adopted a minimum package of practices?	Moderately difficult: Periodic visits to programs, using observation and a check-list which embodies effectiveness guidelines developed by project
<b>3. GOVERNMENT POLICY IMPLEMENTATION</b>	Quantity: Projects changed, new activities initiated in response to policy Quality: Scope, coverage, budget of changed, new projects Time: Target for complete policy	Easy: Maybe decision-makers could keep some sort of diary on projects approved, budget increases, etc.?
<b>E. INSTALLED NATIONAL CAPACITY</b>		
<b>1. PROGRAM KNOWLEDGE, SKILLS</b>	Quantity: How many people learn what knowledge and skills? Quality: What responsibilities do the trainees have in terms of projects, coverage, budgets, etc. Time: When will a "critical mass" of national personnel be satisfactorily skilled?	Moderately difficult: A testing and perhaps even certification program for national personnel receiving training through the project

**TABLE 4.3: WATERSHED MANAGEMENT PROJECT (cont'd)**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<p><b>3. GOVERNMENT POLICY ADOPTION</b></p> <p>Governments declare watershed management a national priority Specific aspects of policy</p>	<p>Quantity: How many countries have adopted policies, strategies, plans covering what activities?</p> <p>Quality: Adherence to guidelines developed by project</p> <p>Time: By when will the countries have adopted a minimum policy/strategy package?</p>	<p>Easy: Read policies, plans strategies using a check-list embodying strategy and planning guidelines developed and taught by the project</p>
<p><b>4. COORDINATION MECHANISMS</b></p> <p>Mechanisms for coordinating agricultural, other, etc. Industries in watersheds</p>	<p>Quantity: How many coordination mechanisms exist covering what donors, projects, etc.</p> <p>Quality: What legal, political authority? What respect by donors, ministries, NGOs?</p> <p>Time: When will there be mechanisms covering what projects and activities?</p>	

**TABLE 4.4: TREE CROP PRODUCTION PROJECT**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<b>C. NATIONAL PROGRAMS AND PROJECTS</b>		
<b>1. NATIONAL TREE CROP MANAGEMENT PROGRAMS</b>		
Multiple use projects initiated R&D projects initiated Investments in reforestation using MTU technologies Nurseries in production	Quantity: Coverage and budget of projects Quality: Type and purpose of projects Time: When will there be benefits to to farmers, environment	Easy? Periodic survey of MUT projects
<b>2. INFORMATION AND EDUCATION PROGRAMS</b>		
Coverage Topics Knowledge, skills acquired by farmers, etc.	Quantity: How many of what farmers have received what information? Quality: What skills are and are not absorbed? Time: When will a "critical mass" of farmers be taught?	Moderately difficult: Testing program for farmers receiving training
<b>D. NATIONAL MANAGEMENT AND POLICY PRACTICES</b>		
<b>1. PROGRAM PLANNING PRACTICES</b>		
Adherence to guidelines derived from training, T.A.	Quantity: How many programs have adopted what design, planning practices? Quality: Program scopes, budgets, coverages Time: When will what percent have adopted a minimum package of practices?	Easy: Read project plans using a check-list which embodies effectiveness guidelines developed by project

**TABLE 4.4: TREE CROP PRODUCTION PROJECT (cont'd)**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<p><b>2. PROGRAM MANAGEMENT AND TECHNICAL PRACTICES</b></p>	<p>Quantity: How many programs have adopted what management practices?                      Quality: Program scopes, budgets, coverages                      Time: When will what percent have adopted a minimum package of practices?</p>	<p>Moderately difficult:                      Periodic visits to programs, using observation and a check-list which embodies effectiveness guidelines developed by project</p>
<p><b>3. GOVERNMENT POLICY IMPLEMENTATION</b></p>	<p>Quantity: Projects changed, new activities initiated in response to policy                      Quality: Scope, coverage, budget of changed, new projects                      Time: Target for complete policy</p>	<p>Easy?                      Maybe decision-makers could keep some sort of diary on projects approved, budget increases, etc.?</p>
<p><b>E. INSTALLED NATIONAL CAPACITY</b></p>		
<p><b>1. PROGRAM PERSONNEL KNOWLEDGE, SKILLS</b></p>	<p>Quantity: How many people learn what knowledge and skills?                      Quality: What responsibilities do the trainees have in terms of projects, coverage, budgets, etc.                      Time: When will a "critical mass" of national personnel be satisfactorily skilled?</p>	<p>Moderately difficult:                      A testing and perhaps even certification program for national personnel receiving training through the project</p>

**TABLE 4.4: TREE CROP PRODUCTION PROJECT (cont'd)**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION
<p><b>3. GOVERNMENT POLICY ADOPTION</b></p> <p>Incentives for multiple-use tree practices</p>	<p>Quantity: How many countries have adopted policies, strategies, plans covering what activities?</p> <p>Quality: Adherence to guidelines developed by project</p> <p>Time: By when will the countries have adopted a minimum policy/strategy package?</p>	<p>Easy:</p> <p>Read policies, plans strategies using a check-list embodying strategy and planning guidelines developed and taught by the project</p>

The word "national" occurs at all three levels to emphasize that we are referring to host government capacity, not to CATIE project management capacity. Internal institution building, that is strengthening of CATIE itself; is not discussed here, but rather in Chapter 4 along with institutional building for other ROCAP projects and institutions.

As in the tables presented previously for the INCAP projects, objectives corresponding to goal-level and output-level activities have been omitted to focus on the development of purpose-level performance indicators. The indicator development guidance tables not only eliminates indicators which are too high or low on a project's objective tree, but also helps fill in gaps in the array of indicators. CATIE suggested indicators covering some important areas, but did not give consideration to other important areas. These tables suggest that CATIE might search for new project performance indicators in the areas below:

Purpose-level objectives that appear comparatively easy to measure and monitor because they are more readily documentable, include:

Information and Education programs in watershed management and tree cropping launched by national organizations for farmers. Indicators might be number, coverage, topics, coverage, and skills learned.

Planning and design of watershed management and tree cropping programs by national organizations. Indicators might be inclusion in design and plans of objectives, budgets, constraints, and consideration of alternatives in plans and design.

Adoption and implementation by CA/P governments of policies in watershed management and tree cropping. Indicators include establishment of watershed management and tree cropping as national priorities.

Coordination mechanisms for managing watersheds. Indicators might include legal and political authority, and respect by donors, and ministries.

Difficult to Measure and Report, requiring special measurement effort:

Skills and knowledge acquired by MS grads, and seminar/workshop participants. Indicators would be derived from training curricula.

Management and technical practices by national organizations involved in watershed protection, and tree cropping. Indicators would be derived from training curricula, and technical assistance lessons.

CATIE projects are parallel in structure and logic to the projects undertaken by ROCAP in collaboration with INCAP. Hence, objectives, indicators, and data collection mechanisms for the CATIE projects are similar to those for the INCAP projects. In this report, treatment of INCAP is more detailed than for CATIE. Therefore developers of indicators for the CATIE projects should read the section in this report on the INCAP projects.

## INCAE

Purpose-level objectives appropriate for measuring the performance of INCAE projects are:

- Impact among Exporters;
- Improvements in the Export Environment; and
- Installation of Export Capacity.

Within "Impact among Exporters" there are two categories: "Economic Impact", and "Management and Business Practices". "Improvements in the Export Environment" refers primarily to government implementation of export policy. Within "Installation of Export Capacity" there are two categories: Skills Acquired by INCAE Graduates and Participants, and Government Adoption of Export Policy. Two subtle but important distinctions are:

- Between 1) skills acquired by INCAE graduates and participants; and 2) exporters' management and business practices; and
- Between 1) government adoption of export policy; and 2) government implementation of export policy.

"Skills" refers to capacity of exporters, whether it is used or not; while practices refers to use of the skill while working in the export business. "Policy adoption" refers to official, written acceptance of export policy; while "Policy implementation" refers to use of the policy to make concrete decisions affecting exports. An implemented, as opposed to a merely adopted, policy "has teeth".

The indicator development guidance tables helps fill in gaps in the array of indicators for measuring performance of the INCAE's Export Management Training project. INCAE suggested indicators covered some important general areas, such as improvement in management performance and new business ventures, which could profit from greater specificity. Examples of more specific purpose-level objectives are listed below:

- New products and new markets developed by graduates and participants in INCAE training;
- Planning, management, marketing, and production practices of graduates and participants from INCAE training;
- Aspects of the export environment such as 1) policy implementation (as opposed to mere adoption) in such areas as incentives, and 2) availability of export infrastructure, etc.
- Skills acquired by INCAE graduate and participants, perhaps measured by test scores.

The feasibility and cost of measurement in the areas listed depends largely on the contact INCAE maintains with graduates and participants from its programs. It would seem that new products and markets, and the export environment would have to keep track through correspondence and perhaps simple questionnaires. Management and Business Practices, however, would seem more difficult. Skills acquired by INCAE graduates and participants might require periodic summary of test scores of graduates and participants. The skill data would become a more convincing measure of project performance if accompanied by the responsibilities carried out by the INCAE graduates.

**TABLE 4.5: EXPORT PROMOTION PROJECT**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION (MEANS OF VERIFICATION)
<b>A. IMPACT AMONG EXPORTERS</b>		
<b>1. ECONOMIC IMPACT</b>		
Changes in non-traditional export sales Number of export firms New products New markets	Quality: What product, what market? Quantity: Volume in units, or money Time: Upward, downward trends	Ease of data collection depends on contact INCAE maintains with graduates
<b>2. MANAGEMENT AND BUSINESS PRACTICES OF EXPORTERS</b>		
Business plan practices Management practices Production practices Quality improvements Quality control Marketing practices Relationships to governments	Derived from training curricula and training lessons: Quality: What practices with what proficiency? Quantity: How many exporters covering what sales volume? Time: Cumulative totals over time	Moderately difficult: Read business plans using a check-list which embodies guidelines from INCAE curricula Use of management practice check-lists
<b>B. IMPROVEMENTS IN THE EXPORT ENVIRONMENT</b>		
<b>1. IMPLEMENTATION OF GOVERNMENT POLICY, PROGRAMS</b>		
Export promotion Export clients served Export infrastructure Quality control Incentives Credit "Ventana unica"	Quality: What policies? Quantity: How many firms, how much business covered by the policy? Time: When will policy be fully implemented?	Does INCAE have a mechanism for tracking the export environment in C/P countries?

**TABLE 4.5: EXPORT PROMOTION PROJECT (cont'd)**

**(Suggested Guidelines for Indicators)**

CATEGORIES OF OBJECTIVES	POTENTIAL INDICATORS	IDEAS FOR DATA COLLECTION (MEANS OF VERIFICATION)
<b>C. INSTALLED EXPORT CAPACITY</b>		
<b>1. INCAE GRADUATES WORKING IN EXPORT</b>		
Job Type of company, organization Product Markets	Quantity: How many graduates? Quality: What job, what kind of firm? Time: Career trajectories	Ease of data collection depends on contact INCAE maintains with graduates
<b>2. KNOWLEDGE, SKILLS OF INCAE GRADS</b>		
Planning Management Production Marketing Other	Quality: Skills learned Quantity: How many graduates, participants? Time: Cumulative totals, proportion of CA/P total	Moderately difficult: A testing and perhaps even certification program for national personnel receiving training through the project
<b>3. GOVERNMENT POLICY ADOPTION</b>		
Laws Decrees Incentives Rejection of protectionism	Quality: What policies? Quantity: Estimated volume of products, firms covered Time: When will the policy be implemented?	Does INCAE have a mechanism for tracking the export environment in CA/P countries?

## 5. SOME CONCLUSIONS AND LESSONS LEARNED

### Refinements to Indicator Development Methodology

Abstracting from the most successful aspects of the exercise carried out with each regional institution, the steps involved in the indicator development process are presented below. To guide further efforts by the project teams, these steps have been applied to the INCAP projects to serve as an example of the indicator development methodology recommended.

#### Step 1: Generation of project objectives using the conceptual model

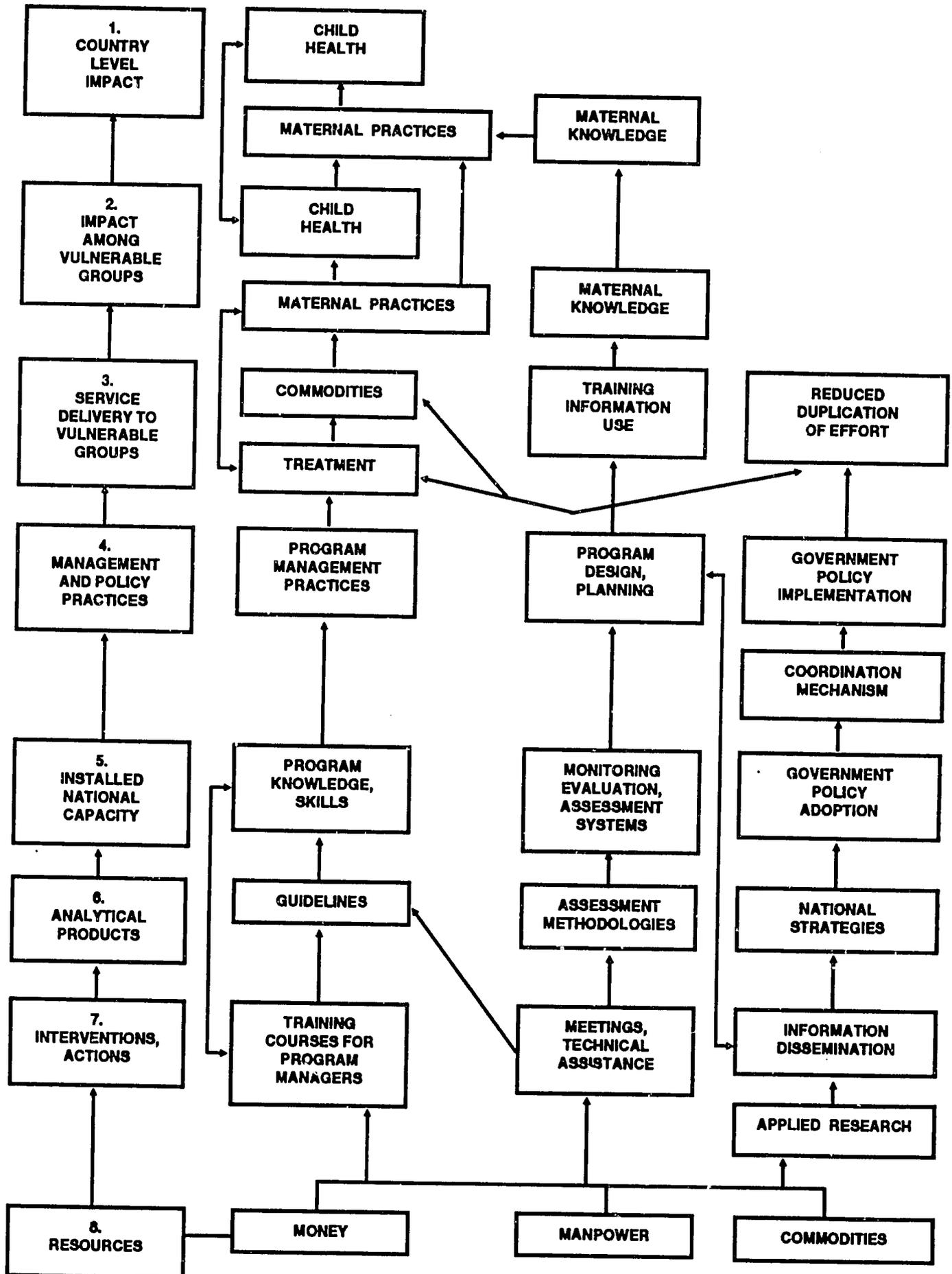
The conceptual model, illustrated by the matrix diagram presented in Chapter 2, was formulated to portray the categories of objectives that must first be clarified before performance and impact indicators can be developed. The model stresses the need for ROCAP to first carefully distinguish between output, purpose, and goal level objectives as well as among programmatic, regional and national organization institution-building objectives. This model was regarded as useful in initiating discussions to generate ideas and begin to build consensus on objectives.

#### Step 2: Analysis of project objectives and logic by means of an objective tree

Carefully constructed objective trees can lead not only to good indicators, but also to better planning and management. Generally, projects cannot be planned and managed without clear agreement on goals, purposes, and linked hypotheses implicit to the project's design. Unfortunately, many projects proceed on the basis of a simple faith that "facing the right direction" is sufficient.

The objective tree consists of two principal parts: 1) hierarchical levels of objectives implicit to the project's design (shown in the example objective tree for INCAP projects as the left-hand column); and 2) cause-effect relations among objectives (generally everything else in the objective tree diagram). As with the logical framework, causes are placed at the bottom of the tree, and effects at the top, with intermediary effects in the middle. Entries in the tree denote areas where indicators might be developed for tracking progress. Arrows in the tree denote hypotheses, or cause-effect relations connecting project objectives. The arrows in the body show that the cause-effect relations among individual objectives are more complex than the simple relations shown in the left-hand column. Taken one by one the following cause-effect relations may seem trivial, but articulation of these relations can yield significant improvements in indicators, monitoring, and management.

**TABLE 5.1: GENERIC OBJECTIVE TREE FOR INCAP PROJECTS**



### Step 3: Division of the objective tree into levels

This step involves analyzing the cause-and-effect relationships shown by the objective tree that correspond to linkages both within and between the output, purpose, and goal levels of the log frame.

In the example objective tree for INCAP projects, the arrows in the left-hand column represent the following linkages:

- a. Resources lead to AID/ROCAP interventions and actions.
- b. Interventions and actions lead primarily to installed national capacity, but also to important analytical products (such as project planning guidelines).
- c. Together, installed national capacity and analytical products lead to management and policy.
- d. Management and policy leads to service delivery to vulnerable groups.
- e. Service delivery to vulnerable groups leads towards health impact among vulnerable groups.

### Step 4: Identification of manageable interest, project performance, and country trend level objectives

For the INCAP Food Assistance and Child Survival projects, most available data describe either: health status of children in country level terms; or operational details of projects. Neither type of data is satisfactory for tracking project performance and impact. Changes in country level health status are unsatisfactory because: 1) there are numerous contributors to child health other than the INCAP projects; and 2) there is a time lag between project interventions and impact. Operational detail is unsatisfactory as it may show progress in the delivery of project output, but does not provide an empirical measure of the gains accrued to beneficiaries.

To track project performance, intermediate or ultimate indicators are needed which are at once plausibly connected to both health impact, and project efforts. The project performance category corresponds roughly to the Purpose level in the Logical Framework. To a large extent, the approach presented here attempts to give completeness and specificity to the Purpose level in Project Logical Frameworks.

In the INCAP objective tree example, omission of country trend and operational level objectives leaves the following objectives as most appropriate for guiding the development of purpose-level indicators:

- service delivery to vulnerable groups
- management and policy
- installed national capacity

Management and policy appears to be the central project performance level objective. While the other two also qualify as purpose-level objectives, "service delivery" risks attribution problems and "capacity installed" risks erring in the direction of output-level indicators that fail to provide convincing evidence of development impact.

**Step 5: Development of indicators at the project-purpose or performance level**

Tables presented in Chapter III illustrate steps involved in developing indicators for purpose-level objectives. The first column of each table attempts to give specificity to the general objectives listed in the Project Paper Logical Frameworks. Much of the specificity was arrived at by extrapolating upward from outputs to purpose. At the output level of the INCAP project's Logical Frameworks, "training courses," "guidelines and methodologies," and "protocols and norms" are presented as components. Yet, at the purpose level, the Logical Frameworks often employ somewhat vague terms such as "effectiveness." Outputs such as "training courses" and "guidelines" are not converted at the purpose level into "skills," "practices and systems adopted and implemented by national organizations." The first column of the tables in Chapter III attempts to correct this oversight.

The second column of these tables identifies information needed to address the quantity, quality, and time aspects of the revised objectives shown in column one. In the Food Assistance project for example, such issues concern coverage of vulnerable groups, food quality, and timely food arrival. Suggestions for continuing the indicator development process for ROCAP projects are presented in the next section of this report.

**Step 6. Development of "means of verification" or data sources for project performance indicators**

The third columns in the tables presented in Chapter III identify potential data sources for the various purpose-level objectives associated with each project. Potential data sources include: 1) incorporation of monitoring and evaluation systems within the projects' Operations Research programs; 2) national monitoring and evaluation capacity developed through the projects; 3) mid-term and final evaluations; and 4) special studies.

**Step 7: Selection of project performance indicators for which data collection is feasible**

An initial assessment of the difficulty of data collection for each purpose-level objective is also given in column 3 of the tables mentioned above. A general conclusion reached is that measures of skills levels involve testing and certification, while measures of management practices and installed capacity require qualitative assessments and use of checklists.

## ROCAP Project Performance Indicators

### Similarity Among Many ROCAP Projects

Many of ROCAP's projects resemble each other in important structural ways. ROCAP projects are generally implemented through a chain consisting of regional institutions, national governmental organizations, and implementing agencies within the jurisdiction of the national organizations. ROCAP projects also commonly operate through some combination of mechanisms consisting of training, information dissemination, applied research, and policy dialogue. Consequently, ROCAP projects tend to have common types of objectives, and therefore similar types of progress indicators. Sets of objectives which ROCAP projects tend to have in common are;

- Training and technical assistance to develop planning and management skills and thereby improve "planning and management practices;"
- Policy dialogue to lead to "policy adoption and implementation;"
- Applied research and information to lead to "information utilization;"
- Coordination among complementary organizations result in "reduced duplication of effort;"
- Integration of interventions with other complementary efforts encourages a multiplier effect investments;
- Institutional strengthening of regional organizations which includes: self-sufficiency, financial stability, reorientation, and increased policy influence.

In the following paragraphs we present what we have learned concerning measurement of progress in the above areas.

### Project Performance Indicators for Training, and Technical Assistance in Planning and Management

Many ROCAP projects support regional organizations which train and give technical assistance to national organizations in planning and management. In project designs, such as Project Papers, much detail is given at the Input and Output levels on the training and technical assistance activities of a project. But then at the Purpose level, where effects of the training and technical assistance should be described, there is often only vague language about "strengthened capacity," "effectiveness," and "efficiency" etc. The curriculum of the training and the expertise of the technical assistance are not converted at the Purpose

level into measurable increases in skills and practices which are then implemented by collaborating organizations and their personnel.

Converting the training curriculum, and technical assistance lessons into skills and practices, is a way to give meaning to vague concepts such as "effectiveness." Converting the skills and practices into tests and check-lists is a way to develop indicators of project performance.

Skills learned, and practices implemented are different phenomena which are measured different ways. For ROCAP projects, both skills and practices would seem to qualify as measures of project performance; however decision-makers are much more impressed by the latter than the former. Skills learned are of little value unless the result in behavior change, that is implementation of practices.

### Measurement of Planning and Management Skills

Measurement of whether planning and management knowledge skills taught in training are learned requires at minimum a written test embodying important aspects of "effective planning and management." Such tests should be standard pedagogical procedure, and therefore requirements for testing should be incorporated into training contracts.

A convincing "project performance" indicator might consist of a summary of test scores, possibly in a table where one axis is important planning and management skills, and the other is types of trainees.

Planning and management skills learned gains explanatory power as a measure of project performance if augmented by a summary of the positions and responsibilities of the trainees. The summary should include the budgets and coverages of the projects and activities under the trainees planning and management control. This "augmented indicator" would allow some predictions of the number of beneficiaries whose service will improve, and the amount of resources under more skilled planning and management.

### Measurement of Planning and Management Practices

In general, measurement of whether practices are implemented is more difficult and expensive than measurement of whether skills are learned. Whereas skill measurement can make use of the testing standard to good pedagogy; measurement of practices implemented requires at minimum development and application of check-lists embodying aspects of planning and management covered in training or technical assistance. Since planning leaves a "paper trail", but management generally does not, application of a planning practices "check list" is easier than application of a management practices "check list".

Components of a plan would appear to be: objectives, work plan, budget analysis, constraints, consideration of complementary activities by other organizations, and consideration of alternatives. It would seem

then that measurement could entail reading project designs and plans, and checking off whether they have satisfactory objectives, budgets, etc.

Monitoring management practices probably requires periodic visits using a check list of management practices that programs should be following. In addition to general management practices, the check-lists should cover specific management problems that require solution (bottle necks, handling, storage, and service delivery, coverage of difficult to reach clients, etc.). Monitoring of management practices may have to depend to some extent on the accumulation of anecdotes which eventually meet the formal requirements for indicators.

Planning and management practices gain explanatory power as performance indicators if they are augmented by a summary list of projects and activities influenced by the practices. The summary should include: estimated number and type of beneficiaries, and budgets and resources at the disposal of the projects and activities.

#### Measurement of the Adoption and Implementation of Policies, Strategies, and Plans

The Project Paper and Logical Frameworks for many ROCAP projects list adoption and implementation by national governments and organizations of policies, strategies and plans as either primary or secondary objectives.

Measurement of formal policy adoption should involve only reviews of official records of policy pronouncements and legislation enacted.

Development and adoption of strategies and action plans means little, however, unless they are also implemented. Measures of implementation, as opposed to adoption, might consist of the number of projects rejected or changed, or the number of new activities initiated in response to the strategy or policy.

Adoption and implementation of policies, strategies and plans as project performance indicators gain explanatory power if they are augmented by a summary list of projects and activities influenced by the policies, strategies, and plans. The summary should include: estimated number and type of beneficiaries, budgets and resources at the disposal of the projects and activities.

The possibility of using policy adoption and implementation as indicators of "project performance" was raised in a meeting with ROCAP personnel in late February. There seemed to be agreement that policy impact was measurable. Yet, there was reluctance to do so because taking credit for policy changes made by Central American governments involved significant attribution problems as well as political connotations of violation of national sovereignty.

## Measurement of Strengthening of Collaborating Organization

ROCAP's relationship with a given regional organization is invariably a mix of two elements: 1) a contract for services, and 2) strengthening of the regional organization. Balance between the two elements varies as does the extent to which the organizational strengthening element is explicit and agreed upon. However, the two elements are typically present, sometimes creating a tension. The tension derives from differences between what a specific contract may require, and what the regional organization requires to survive and grow.

A major contribution of the exercise described in this report has been explicit focus on the relation between specific projects and the strength and growth of regional organizations. Indicator areas suggested by the exercise regarding the strength, and orientation of regional organizations are as follows:

- Financial self-sufficiency expressed as the number of months the organization could exist without a new contract or project;
- Diversification of project portfolio;
- Diversification of funding sources;
- Operational vs. research hours, expenditures;
- Proposals elaborated, approved in new operational areas; and
- Participation and influence in regional policy dialogue.

## Areas Needing Further Definition: Coordination, and Reduced Duplication

Coordination Mechanisms: Coordination mechanisms among donors and service providers is definitely an important aspect of many ROCAP projects. A memorandum by the Food Assistance Technical Advisor lists the necessary prerequisites for effective coordination mechanisms: legal and political authority, as respect by donors, ministries, PVOs, and the private sector. Legal and political authority of coordination mechanisms, because they are documented, they are readily verifiable. Respect by the organizations they are meant to coordinate is another matter.

Decreased Duplication of Effort: While duplication of effort is mentioned as the reason for attempting to set up coordination mechanisms, no specific mention is made of evidence of duplication of effort.

## Issues in Collaboration

The Importance and Difficulty of Measuring Impact: There appears to be a strong general consensus, at least on a conceptual level, about the importance of measuring impact for these projects and A.I.D. assistance in general. Those involved with funding and implementing development projects have a strong interest in determining, measuring and demonstrating the contribution of their efforts to larger development goals, both for internal management and external reporting use.

Most of those involved seem to recognize that the kind of reporting required as an integral part of the A.I.D. system often is of limited value for this purpose. It seems clear also, that much of the available data on large scale national trends, even in relevant areas such as infant mortality, exports, housing, etc., are limited in their ability to demonstrate the actual contribution of any particular set of activities to any changes or improvements in those trends. So even though there may be large scale improvements in areas related to the objectives of the project, it may be difficult to attribute improvements on such a large scale to the specific activities of the project.

At the same time, there is general acknowledgement of the difficulties involved with identifying this kind of impact data. Finding indicators which are significant in scale yet still clearly related to project activities often is tricky. And even if useful areas are identified, data are not always readily available. People at ROCAP and on the project teams, may with years of experience in similar activities, recognize the importance of his kind of data and have had ongoing difficulty in finding workable approaches. Hopefully some of the technical suggestions in this report will be helpful in this area.

Often, as described in the previous section, this kind of impact level data often involves evidence of changes in behavior on the part of the objects of project activities. That is, people doing something differently, as a consequence of what the project directly produces these changes in behavior. If successful and if supported by other developments, they ultimately produce the larger scale effects the project seeks. But these behavioral changes often are quite individual and not visible in any public or aggregate way. So, even when changes are not private in nature, like the use of improved seed varieties, significant follow-up often is required to determine that they have occurred. This raises the issue of who pays for collecting this information. It is of course important for ROCAP's purposes, as well as those of the grantee. Though difficult and sometimes expensive to obtain, such data may be extremely useful also for internal management purposes, for an organization which is genuinely concerned that its activities be properly oriented so as to produce the changes necessary to the desired impact and to the project's success over the long run.

The time frames for measuring impact: Most impact level developments require time for the longer run cause-and-effect relationships to take place. Often they do not, even in very successful projects, until well after the project has ended. This is particularly true in many ROCAP projects where the links between the project intervention and the ultimate

impact is quite long and travels through many sets of activities and many distinct organizations. With most donor-funded projects, when the project (and its budget) comes to an end, the administrative mechanisms associated with it also stops. the project ceases to have an identify as a separate entity. The blip disappears from the screen and the data associated with the project become difficult to track, particularly if tracking such data requires special resources.

Yet, this continued tracking of data is exactly what is needed if there is to be any possibility of measuring impact from these projects. Some ROCAP projects were implemented years ago, long enough for impact from even the longest set of linkages to have transpired, if it has in fact occurred. There is a need to have mechanisms in place which continue to gather the relevant data, over the long run.

As projects become increasingly linked to the core missions of the institutions, it may be that the indicators which measure impact of the specific projects turn out to be indicators that the institution itself has an interest in tracking, for its own management purposes. This of course represents an additional benefit of collaboration between ROCAP and the implementing institution in the selection of long-run indicators of impact.

At the other extreme in areas of special interest to A.I.D., it might be appropriate to fund special mini-studies or, in some cases, a small department within the institution, for the purpose of collecting and analyzing this kind of information. Data on these indicators might also have value for other institutions in the region. Some might already be being collected on an ongoing basis, by governments or some other institutions. In any case, this issue of "life after the project ends" needs to be considered as a part of any plans for impact-level data collection.

Mission and goals of project funders and project implementors:  
Focussing on indicators inevitably has the effect of "smoking out" any differences in objectives among those involved in a project activity. The more specific the indicators, the less the groups can rely on vagueness as a tool for creating expressed but not genuine agreement. this has proven especially true regarding issues of alignment between A.I.D. and the regional institutions, with regard to measuring impact in the projects which it has funded.

One ongoing issue with some projects is the extent to which the grantee institution takes responsibility for the impact level of project results. In some cases, what an organization needs to do in order to bring out impact, such as working with national and local groups on promotion, for example, may be very different in character from the organization's core activity, e.g., high level research. There may be resistance to expanding activities into these new areas. If the fundor is eager to fund, and the grantee is eager to be funded, some of these differences may be overlooked at the time of a funding agreement. Yet, they are likely to come out when the groups seriously consider specific indicators for reporting and monitoring, particularly indicators at the impact level.

This type of difference also may emerge when groups share some longer term objectives, for instance, increased exports, but do not necessarily agree on what types of activities might contribute most to achieving them -- for instance, training on export procedures versus more general areas of management. In these cases, good impact level data may be very useful in settling such differences by providing objective information on progress in areas closer to the real impact goals of the project. In a general sense, the more that different groups can get together at the level of impact, the more flexibility there is likely to be in experimenting with and choosing tactics to achieve that impact. In any case, the consideration of indicators forces groups to be clear about objectives and tactics. By so doing, the process may serve to show up differences between the groups and provide a useful vehicle for achieving genuine alignment.

Inter-organizational linkages: Another issue which became evident is the potential for tensions among the various entities which make up the A.I.D. system in general and regarding any specific project.

The activities of the exercise focussed most specifically on the interface between ROCAP and the regional institutions which receive its funds. A major aspect of the exercise has been developing indicators for the projects which, among other factors, are acceptable to both ROCAP and to those institutions, as statements of direction and criteria for accountability for the projects.

In itself, this relationship presents possible differences in perspective, as in whether ROCAP is funding an institution to carry out the institution's work or is paying the institution to implement ROCAP's own agenda. Is ROCAP's financial support of an institution as a partner making it stronger, or as a contractor? Is ROCAP insisting on getting its money's worth from the institution in ways which actually might make the implementing institution weaker? These are basic questions among others, which form a context for discussions about indicators, particularly at the level of impact.

In addition, each of these institutions has its own pressures and demand related to its own internal network of actors. The regional institutions all have one kind or another of ties to the governments of the region, each with its own priorities and demands. Being insulated from year-to-year political pressures while maintaining the support of the governments, which must themselves respond to those pressures, is sometimes a difficult balance. The regional institutions also have relationships with other donors and other collaborating institutions (e.g., IICA, PAHO and others) whose priorities they have to respect.

A.I.D. itself is a part of a large government network, extending to the President and Congress of the United States. When the consultants spoke with individuals at A.I.D./W who are experienced in the area of indicators, their orientation to indicators related most directly to Agency-wide or bureau objectives. Their concerns seemed unrelated at times to those among the actors in the field.

Often the view expressed by LAC officials in Washington was that any indicators from any projects in Latin America ought to fit, somehow, within the scope of the region's fourteen regional objectives, if they were to have any significant organizational meaning. Of course indicators which are selected also must have significance to Congress and the changing political priorities of the political system as a whole, that is, they must respond to what may be "hot" at any given time. These concerns may be far removed from both CATIE or INCAE, and from ROCAP as well, but are inevitably a part of the context of the negotiations which must be taken into account.

### The Value and Difficulties of Collaboration

The increased awareness of the importance and difficulty related to impact level indicators has been discussed. The exercise also produced a corresponding reaffirmation regarding collaboration among funders, grantees, and project teams in developing and using them. The exercise demonstrated both the value of collaboration as perceived by many of those involved, as well as some of the reasons it is often not done effectively, or in many cases at all. The regional institutions responded enthusiastically to the opportunity to work at developing management indicators for their projects. The project teams responded also to the suggestion to focus more on indicators relating to impact levels and the development of their own institutions, areas which are typically difficult for project teams.

Two of the projects had recently been through evaluations which were supposed to have been collaborative, but were not seen as such by the institutions, or by ROCAP itself. The organizations and individuals involved welcomed this opportunity. In spite of their concerns, the teams could see the value in indicators which were fewer, higher level, and focussed on themselves. Most importantly, these indicators were developed in conjunction with ROCAP, the organization to which they were responsible for project resources.

From ROCAP's perspective this genuine collaboration also appeared to be regarded as an important aspect of the approach. Since the institutions would collect and report the data, it was expedient that they be fully informed from the beginning. This became more evident in the context of impact level data which might not even be available until after the life of the project. Also, though ROCAP was aware of the demands of the project paper and the pressures to respond to the larger goals of A.I.D./Washington and (ultimately) Congress, it was the teams and the institutions which knew what the projects were really achieving.

This desired level of collaboration often does not occur easily. For example, there may be differences in the goals of the organizations which impede collaboration in certain areas. This issue may be made even more difficult when each organization is responsible to a number of constituencies, such as A.I.D./Washington, Congress, member governments, other donor organizations (including core funders like PAHO), each with differing interests of its own. Not only does the presence of multiple constituencies make collaboration difficult before the fact, but even

after an agreement is made, unexpected changes frequently arise that put subsequent pressure on that agreement. Experience suggests that it is especially difficult to be clear about potential differences in goals when the grantee organization needs the resources in question, and the funding organization needs to distribute them due to its own internal pressures.

### The Need for Improvements in the Project Monitoring System

There was a reaffirmation through this exercise of the need for improvements in the project management system. There were logical frameworks for each project, complete with indicators, and ongoing reporting systems conveying in many cases more than it was necessary to know about project activities. By some standards one might have thus seen this exercise as redundant and, indeed, concerns were expressed from the beginning regarding the exercise by certain ROCAP staff. In virtually all quarters, however, dissatisfaction was expressed regarding current monitoring systems, and this exercise was seen by most as having at least the potential for addressing certain of these problems.

Many of the identified shortcomings of the system related to the specific thrusts of the exercise, i.e. the need for better indicators at the impact level, streamlining the system by cutting down on unnecessary information, paying more attention to the institutional development aspects of the activities and ROCAP's relationships with the institutions, and establishing a better collaborative process. All those involved expressed hope that the system could be improved in a significant way.

### The Tension Between Management Information and Accountability

This exercise began by approaching the development of indicators as if the same indicators might clearly and easily be used for purposes related both to the projects' own needs for information and the demands of others for accountability. As the exercise went on it became clearer that though there might be overlap in some cases, there were many differences in the criteria for indicators for these two distinct management purposes.

Indicators related to management information need only satisfy internal decision-makers with regard to plausibility and verifiability. Intuition might serve well, as it often does in project management. There is encouragement for shooting high, for setting ambitious goals, for tracking areas that are really important, even if many unforeseen circumstances might get in the way. It is most important that what is measured be congruent with the genuine motivations of the project and its personnel. Public relations issues can be dealt with later when the information is available to be used in appropriate and constructive ways.

On the other hand, management indicators which will be used by people outside the project carry with them a different set of conditions. It is often not clear how the data will ultimately be interpreted and used, or what decisions might be made as a result. Some people may be more critical toward a project than others, or perhaps not understand the implications or the context in important ways. For this reason it may

seem risky to choose an indicator which does not carry with it a high probability of success. Therefore, overly ambitious indicators and/or indicators which carry with them uncertain assumptions are apt to be avoided since these selected indicators may be all that some people look at in order to obtain their full impression of the project.

In practice, situations are typically somewhere in between the two extremes described above. Also, the notion of "insiders" and "outsiders" is a relative one and is related to the trust levels among the parties involved. Are the top managers of the grantee institutions insiders or outsiders? What about project advisors? Project officers? The personal relationships which are created are certainly an important factor. With large bureaucratic organizations, however, there is often the concern that even among trusted and well intentioned people, information can be picked up by "the system" and develop a momentum which seems out of the control of any individual human being. It is this possibility that was most often mentioned during this exercise, particularly with regard to the use of indicators in ROCAP's semiannual reports.

Another related "learning" is that the tension described above can often be addressed by including among the indicators which are tracked data from the "assumptions" column. These indicators relate to conditions or other occurrences upon which the project depends for success, but which are outside its control. In this way, with a small number of carefully selected indicators it is possible to demonstrate the progress of the project in critical areas as well as any limits on its success which may have arisen from outside its sphere of responsibility.

## 6. PENDING ISSUES FOR ROCAP

The indicators exercise was carried out with ROCAP and the regional institutions in the context of the many ongoing administrative activities. The project reviews describe some of those activities. The exercise was to contribute to strengthening the system of management for the projects with ROCAP. Some suggestions for follow-up activities emerged from this work, in order to maximize this strengthening potential. The following discusses some of these remaining issues/tasks for ROCAP relating to the exercise.

### Management Context for the Use of Indicators

During the consultancy, concerns were expressed about the possible uses of the indicators being developed. As previously stated, a principal thrust of the exercise was selecting fewer indicators and closely targeted at the impact level. Concerns expressed related to the potential difficulty in demonstrating important achievements of a project with a small number of indicators, and the inevitable loss of control over results as one goes higher up the cause-and-effect chain. Individuals from ROCAP and on the project teams expressed the apprehension that this smaller number of higher level indicators might give an inaccurate or incomplete picture of project accomplishments.

This issue obviously is directly related to questions of the ultimate use of the indicators. Indicators which might provide very useful data for internal management purposes of management information or for drawing attention to possible problem areas requiring further investigation, might be grossly misleading in isolation to represent the full status of project activities. The concern expressed was that there would be some pressure to use the indicators for broader reporting purposes, particularly in semi-annual reports. Management made it clear its intention to continue to report output level data, but the concern remained that the desire to streamline the process might produce misleading representations of the projects in potentially risky contexts.

The consultancy took the project teams to the stage of producing draft indicators in the various cells of the matrix. These were considered "raw material" for the next phase of the process. The exercise was intended ultimately to produce a limited number of impact level indicators for joint (ROCAP/project) monitoring, in addition to other management uses. It seems important for ROCAP to decide the ultimate uses of the indicators before the next stage of this process. Their inclusion in the semi-annual reports was a main focus of the issue for many ROCAP staff, but this decision seems broader than that question alone. Perhaps the indicators would be used only informally and internally by ROCAP to track contributions to ROCAP's program level objectives, or to identify possible problem areas. Indicators might also be used only to track achievement. If used to show gaps between results and objectives, the indicators might be accompanied by data on assumptions which are beyond the control of the project teams or ROCAP itself. In summary, questions that ROCAP need address before continuing the indicator development

process include: How will the indicators be used? Where will they appear in the A.I.D. system? What management questions will they respond to?

### Further Technical Assistance on the Development and Use of Impact Level Indicators

There was a good deal of enthusiasm for the indicator process among the project teams in the various institutions. Groups also expressed the desire for further training and support in this and related areas. Hopefully this exercise, including this final report, will contribute to that support. All the project teams requested (and will have received) feedback on the draft indicators from the consultants. A number of participants asked if there was to be further activities as part of the exercise. There appears to be openness to help in this area and interest in further training. This would appear a useful direction, as well as some way to institutionalize such support for the future.

### Mechanisms for Post-Project and Wider Tracking of Impact-Level Indicators

The activities of the exercise confirmed the special difficulties ROCAP and the regional institutions face in tracking project impact due to the longer time lag between project outputs and chain of interventions to reach ultimate impact. It soon became clear that any impact level achievements of the project are not likely to occur until after the life of the project. Therefore, any system for collecting data on these achievements would have to exist independent of direct project funding or A.I.D. oversight which is linked to the project.

Typically when a project ends and officially goes off the books, it ceases to be the responsibility of anyone at the respective USAID mission. In the absence of a system at the USAID mission for tracking data at the program level, to which these indicators might pertain, some special mechanism would have to be created to track the relevant data. Such a mechanism must probably be located within the grantee organization. Establishment of such a mechanism raises questions of funding and administration responsibility. Clearly the closer the indicators coincide with the long run goals of the institution, the more easily the data gathering related to A.I.D. projects will mesh with ongoing management of the organization. This is another argument for a collaborative approach to indicator development. The regional institutions would seem to be logical candidates for many types of data gathering activities on a regional basis, for their own purposes and perhaps also the use of others.

In any case, if A.I.D. is truly serious about identifying indicators and gathering data at the impact level, it will need to make sure of this mechanism for tracking this information in ways which are not tied to particular projects, or limited by their time frames. This should be addressed by any follow-up activities related to this exercise.

## Completing the Collaborative Process for Identifying Useful Indicators

Indicator development meetings were conducted with project teams and ROCAP staff for five projects. In one case an extensive draft list of sample indicators was generated. In the other four, the meetings produced shorter lists of more carefully selected indicators in the various cells of the discussion matrix. Even from a technical perspective, it was clear to all those involved that these lists of indicators needed further work to be of real management use. In many cases, final decisions also needed to be made on which indicators to ultimately select. These decisions awaited further discussion and direction from ROCAP on how the indicators would ultimately be put to use. In most cases, the groups scheduled follow-up internal meetings, with official sessions with ROCAP staff to follow at an appropriate time. Discussion of unresolved issues needs to include reference to the follow-up sessions of these five projects, as well as the possibility of similar activities for other projects in ROCAP's portfolio.

## Alternative Structures for Institutional Relationships

The indicators exercise and follow-up have provided an opportunity for ROCAP to more effectively define its relationships with the regional institutions. The nature of these relationships in fact differ from institution to institution, and in some cases, even from project to project. Yet at present, the formal management structures remain the same. Furthermore, in many cases these structures were developed for very different management contexts. In working with the institutions to decide upon the indicators and their ultimate management use, issues may emerge which require that ROCAP and the institutions redefine their relationships in a more precise and operational way.

We would like to review the most obvious options for institutional relationships which reflect these varying new conditions. These relationships have implications for the indicators which are selected, and the way they are used, particularly with regard to issues of accountability.

1. Project Fundor/Grantee - In this option, a funding agency grants resources to another institution to perform a stated development task consistent with the donor agency's overall goals. The task may or may not be central to the goals of the grantee. The grantee agrees to perform the task in the manner outlined by the grantor for any of a number of possible reasons. The donor agency is typically concerned about issues such as (a) selecting the appropriate grantee (implementing) institution; (b) insuring accountability in the accomplishment of the task; (c) economic efficiency, "the most bang for the development buck"; (d) promoting development impact; this application may or may not be a part of the project contract. With this option, outputs should be clearly defined trackable, and genuinely agreed upon by both parties.

2. Development Area Fundor/Grantee - With this option, a funding agency may be very clear on purposes and goals, but not focussed on a particular approach or set of outputs. In this case the funding agency may wish to support a grantee institution, with expertise in the area, to increase or strengthen its contribution to overall impact in the identified development area. This option would involve difficulties in measuring results in a manner most familiar to A.I.D. missions, i.e., with clear outputs in specific areas. If the intervention is successful, there ought to be some increase in the organization's contribution to impact in the defined development area, but in ways which perhaps were not fully predictable a priori. Accountability in this scenario would appear to lend itself to the so-called "needle approach" i.e., moving backwards from the desired impact to the grantee institution's activities. This kind of relationship cannot be easily be monitored on an output level, and so requires greater prior agreement between the donor and grantee on overall direction, the specific impacts sought, and the general approach, as a prima facie condition for an effective agreement.

3. Institutional Core Support - This is the closest to a full partnership, and perhaps closest also to the kind of relationship which is intended by ROCAP, at least at a theoretical level. In this approach, the funding institution and grantee agree to work together toward some specifically defined (but possibly broad-based), institutional development goals for the grantee. This type of relationship is the trickiest to monitor in the short or medium term, since typically its goal is improving the capacity of the grantee to function effectively without the supervision of donor institutions, and in fact to behave more like a peer. For this reason it is even more important than with other types of relationships to dedicate the necessary time and energy to insure full congruence on the institutional directions to which both organizations are committing their support. To be sure this relationship cannot and should not be attempted with more than a very small number of institutions, where conditions are exceptionally conducive. It should not require nor lend itself easily to ongoing monitoring, but does require a much greater shared sense of direction. It must be based on areas of genuine congruence to work well, and so both organizations must be willing to not enter into this type of arrangement if the situation is not right.

Some of ROCAP's current projects with the regional institutions fit these different models, at least in theory. It would be useful for ROCAP to consider overall goals and individual projects in the light of some of these distinctions and work toward the development of management structures which fit these distinctive realities. Of course this may mean confronting established bureaucratic systems, and this may not be advisable for other reasons. If these issues of alternative structures for institutional relationships are at least raised, it may be easier for mission management and the institutions to accept and deal with the implications of current structures which may be inappropriate to current conditions.

## 7. SOME FURTHER RECOMMENDATIONS

### An Ongoing Process for the Development of Indicators

A very promising beginning has been made in initiating this process. Those who participated, both project leaders and members of the staff, engaged in an open and frank exchange of views. These discussions should continue until a preliminary consensus is arrived at and a set of proposed indicators selected through the two step process of first identifying a large number of indicators and then arriving at a select few, no more than one or two for each purpose-level objective. Although progress achieved varied with different projects, the following steps are suggested for continuing the process:

1. After initial selection of the indicators, discussions should be held with senior management of the regional institutions to get preliminary approval, bearing in mind that discussions with ROCAP (or even national institutions) may change these indicators.
2. These meetings should be followed by discussions with ROCAP at the level of the ROCAP project and evaluation officers to further refine indicators and arrive at indicators which meet the needs of both organizations. It should be remembered that indicators may need to change as the project is implemented -- putting more emphasis on input indicators during the first year or two, then moving to emphasize output indicators as the project reaches maturity, and finally moving to focus on performances and impact indicators as the project formally ends.
3. ROCAP's representatives will then need to consult with its senior management and perhaps AID/W, particularly if this means a reduction or change in the indicators shown in the logical framework or if additional funds will be required to gather and analyze data needed for the new indicators.
4. At this point a final meeting should be held between each organization and ROCAP to decide: who is responsible for gathering the indicators; how they will be gathered; how often they will be gathered; the cost of gathering the indicators; who is responsible for financing; and the reporting form in which results will be presented.
5. It is suggested that joint meetings be held by senior collaboration organization and ROCAP staff every six months during the project implementation stage to review progress and problems, and that a meeting be held six months after the final disbursement to review overall results. Subsequently, annual meetings can take place to review performance and impact. Meetings with this frequency should not be too burdensome and yet should meet management needs. As more projects are completed, it should be

possible to review a number of projects in the same review session.

### Performance Measures Generalizable Across ROCAP Projects

Since many ROCAP projects have objectives and indicators in common, they might also have monitoring methods or mechanisms in common. Areas for common performance monitoring efforts might be:

Planning practices of governmental and non-governmental organizations in client countries;

Management practices of governmental and non-governmental organizations in client countries;

Planning and management skills acquired by people trained through ROCAP projects;

Information dissemination and utilization carried out through ROCAP projects;

Policy adoption and implementation supported by ROCAP projects;

ROCAP-supported coordination mechanisms, and reduction of duplication of effort among donors, government organizations, and non-government organizations.

ROCAP should examine the feasibility of ROCAP-wide measures, methods, and progress monitoring mechanisms in these areas. The advantages of ROCAP-wide approaches are: sharing of resources and expertise, and standardization of indicators which may facilitate aggregation of performance measures across projects. Such aggregation would be useful for ROCAP reporting to AID/Washington, and to Congress.

The previous paragraph identifies several common threads uniting ROCAP projects. A common thread which shows potential of uniting all projects, whether they be in health, business development, or environment is:

Effective planning and management practices within CA/P governmental and non-governmental organizations.

Additionally, "effective planning and management practices" is attractive for measuring ROCAP performance as a whole because it:

Relates plausibly to economic welfare, and environmental impact; and

Relates plausibly to ROCAP investments and efforts.

However, the term "effective" is a vague, unmeasurable concept. As we have said, a way to render the concept concrete and measurable is to convert training curricula and technical assistance lessons in planning and management into lists of planning and management practices which

embody the curricula of management training, and the lessons of technical assistance. Therefore MSI suggests that one promising step might be to encourage all ROCAP projects to prepare:

Lists of planning practices which embody the curricula and lessons of training and technical assistance in planning; and

Lists of management practices which embody the curricula and lessons of training and technical assistance in management.

Definitions of "effective planning and management" will vary from one project to another. The next task would thus be to convert the lists of practices into check-lists applicable to the planning and management performance of organizations and individuals receiving training and technical assistance through ROCAP funded projects.

Tracking the use of effective planning practices would be easier than tracking management practices, since planning leaves a "paper trail". If only the tracking of improvements in planning performance were achieved, then a great step forward would have been made.

#### About Indicators for CA/P Institutions

The intent of following recommendations is to move the CA/P institutions and ROCAP toward a simple, useful system of tracking and reporting project performance. CA/P institution staff should study the tables in Chapter 3, and then write ROCAP a brief report covering the following topics.

- The appropriateness of the General Objectives in the left hand columns of the tables, and refinements to the General Objectives.
- The appropriateness of the Potential Indicators in the middle column of the table, and refinements and corrections to the Potential Indicators.
- The feasibility of the Data Collection Ideas in the right hand column of the table and new data collection ideas.
- The approximate effort and cost associated with each data collection effort. (Some data may already exist, incurring little or no cost.)
- The internal (within CA/P institution) decision making benefit that might derive from each data collection and analysis effort.

Then each CA/P institution should write a brief conclusion, selecting several indicators:

- (1) Which accurately and fairly summarize the sense of the project;
- (2) Whose collection and analysis is feasible in terms of time, effort and money; and
- (3) Which render significant, internal decision making dividends.

In addition, each CA/P institution should include a draft workplan and timetable for collecting, analyzing and reporting the data. The analysis required by the above recommendations may require the assistance of an outside consultant.