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**INCREASING THE SUSTAINABILITY
OF DEVELOPMENT ASSISTANCE EFFORTS:**

**LESSONS LEARNED
AND
IMPLICATIONS FOR DONOR AGENCIES**

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PREFACE

This paper is a product of an effort, sponsored by the Office of Rural and Institutional Development, Bureau for Science and Technology, to examine the sustainability of development activities. This effort has its roots in a request by the former Administrator, Peter McPherson, that the S&T Bureau examine the issues that affected the sustainability of the Agency's institution building initiatives. In turn, S&T asked the Development Program Management Center to coordinate this study.

Early in the process it became clear that the development and sustainability of institutions was intimately related to other dimensions of sustainability. Thus a broader mandate to examine factors related to the sustainability of all development efforts was proposed and adopted. This broader view provided the basis of the "discussion draft", the first version of this paper. That version was coauthored by Janet Poley, Development Program Management Center, and Marcus Ingle, International Development Management Center (IDMC), with input from Andrea Jones and Bart Sensenig, both of IDMC, and from Donnelly Roark and Associates.

The discussion draft was presented at a one-day workshop in June 1987. Participants were drawn from regional and central bureaus of A.I.D. and from outside the Agency. The consensus of the workshop was that perhaps the sweep was too comprehensive and a somewhat more focussed presentation was needed. This and other useful observations were incorporated into the "working draft", the second, and substantially revised, version of the paper. This version was largely the work of Louise White, with important contributions from Janet Poley and Marcus Ingle.

The working draft was circulated within the Agency and to selected outside reviewers. The comments received indicated that the scope of the paper was about right, but that greater precision was needed as to what differentiated sustainability from generic "good management". This concern has guided the preparation of this version of the paper. Louise White is the principal author of this version, in collaboration with Tjip Walker and Marcus Ingle of IDMC.

Review copies of this "final draft" have been circulated within the S&T Bureau. Of the many useful comments received, one deserves particular mention. All of the recent empirical studies of sustainability reveal a dismal record: very few project benefits have been sustained or have a high probability of being sustained. This paper takes these results as an indication of a problem and then attempts to identify the conditions that enhance the likelihood of sustainability, both within collaborating countries and internally within donor agencies, specifically A.I.D.

What is implicit in the paper but deserves to be made explicit is that almost all of the empirical results relate to development assistance in the form of projects. From these findings alone it is inappropriate to

generalize that the low levels of sustainability achieved through project assistance would also apply to more recent Agency initiatives such as program support, policy dialogue, and privatization. At the same time, the conditions identified in this paper as promoting sustainability appear to apply with equal force to projects as well as to other forms of development assistance.

Throughout this process of version and revision, Jerome French of the Office of Rural and Institutional Development, has played an important role. He has provided many insights and his tireless support of quality and his willingness to grapple with controversial recommendations has been a sustaining force to the study team. Whatever merit this final product may have is largely his doing. In the latter stages, helpful comments were also received from Jeanne North, Ken Kornher, and Eric Chetwynd, all of S&T/RD.

EXECUTIVE SUMMARY

There is a growing interest in improving the sustainability of development assistance, particularly the reduced amount of resources available for present and future development purposes. At the same time, it is a goal that poses some difficult questions and challenges. The continuation of development activities depends on factors over which donors have little control; it makes the development process even more complex than it normally is. This paper explores the meaning of the concept of sustainability and then reviews recent experiences for lessons about the conditions that encourage sustainable activities. It concludes by reviewing the implications for A.I.D.

Current definitions of sustainability have highlighted self-finance, continuing benefits, or institutional longevity. But these are incomplete and, taken alone, can be misleading. This paper defines sustainability as "the ongoing, dynamic process of continuing the valued results of development activities." Note the emphasis on the process or capacity for bringing about results, and the emphasis on the results of activities rather than the activities themselves. Defined in this way sustainability adds an important dimension to program and project implementation. Implementation concerns both producing short-term results and continuing them into the future. The problem is that those in charge of assistance find it easier to focus on short-term objectives. They lack needed information and organizational and political incentives for applying a longer time-frame. As a result, they often pursue immediate objectives rather than spend time on the more laborious and uncertain process of developing a capacity for continuing activities in the future.

Recent research and experience indicates that the sustainability of development efforts is dependent on three sets of conditions: (1) Policy incentives to reinforce long-term results; (2) Institutions to mobilize continuing support; and (3) Management systems to set priorities and adapt activities.

Policy incentives particularly relevant to sustainability include macroeconomic policies to stimulate economic growth and provide appropriate incentives for change; policies that allow for more diverse public finance; policies to support the distributional goals of development activities; and policies to preserve and enhance the natural environment.

Institutions that encourage sustainability are needed to mobilize continuing support. They are more apt to do so if they are developed through a collaborative process, if they encourage developing countries to exercise responsibility for development activities, if they devolve responsibility to local units and to the private sector, if they provide supporting linkages between these units and those with resources and support, and finally if they help project units explore and mobilize a variety of new financial resources.

Management systems are also important factors in promoting sustainability. Systems are needed that enable managers to balance their short-term and long-term perspectives, that allow them to both adapt to changing circumstances and try to bring some influence to bear on those circumstances, and that provide both "lean" and "mean" procedures.

A number of guidelines for A.I.D. can be derived from these lessons such as the need to develop a specific policy to support sustainability and the need to give more responsibility to developing country institutions. Even as the Agency expresses an interest in moving in this direction, however, a number of critical issues remain that A.I.D. needs to address. The problem is that there are a number of constraints that make it difficult for A.I.D. to give sufficient discretion to developing countries, or to delegate enough flexibility to other institutions to make sustainability very likely.

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I. INTRODUCTION

While a number of individual development projects and activities have been creative and effective, it is increasingly apparent that the overall record of producing long-term results within developing countries is very poor. The result is a growing interest in improving the sustainability of development assistance. While it seems both obvious and unarguable that donors should care whether their assistance has lasting results, the concept raises a number of difficult questions and challenges. In the first place, sustainability depends on conditions and priorities within the developing countries, factors over which donors have limited control and influence. In the second place, taking long-term results into account makes the development process even more complex and difficult than it normally is. Evidence suggests that before they can deal with this complexity, donors will have to undertake extensive changes in the operating style and organization of assistance. A major purpose of the paper is to draw from recent experiences to propose what some of these changes might look like and to consider the possibilities and problems associated with in putting them in place.

The demand for paying more attention to sustainability comes from many sources. A recent Congressional study notes a critical discrepancy between the U.S. foreign assistance policy to "build and maintain the social and economic institutions necessary to achieve self-sustaining growth" and the accumulating evidence that donor financed efforts frequently do not result in sustainable improvements (U.S. Congress, 1986). A review of A.I.D.'s 1984 programs found that "although sustainability is one of the elements of A.I.D.'s institution building concept, the weight of evidence . . . suggests that this goal is not yet being pursued with adequate diligence, seriousness of purpose or by means of clear enough criteria" (U.S.A.I.D., 1985). A subsequent review of evaluations of A.I.D.-financed projects conducted in 1985 and 1986 concluded that only 11 percent of 212 projects have a strong probability of being sustained after the conclusion of U.S. assistance (Devres, 1987).

Similarly, a recent study by the World Bank (1985) found that of 31 projects assessed to have a high probability for sustainability at the end of Bank funding, only a little more than one third (13) were rated as having achieved sustainability five years later. The importance of sustainability has also been underscored by a report from the Development Assistance Committee reviewing the experiences of various donors and offering recommendations for promoting sustainability.¹

Additionally, A.I.D. sponsored in-depth studies of health sector activities have examined the long-term implications of assistance and examined which factors seem most conducive to sustainability.² Finally, the broader literature on development reflects a growing concern that donor assisted activities frequently do not have lasting results.³ Sustainability takes on added significance in light of the declining financial resources available for development activities both among donors and increasingly debt-ridden developing countries. From the perspective of

donors, a concern with sustainability is important because it promises to increase the return on their investments and to strengthen the long-term capacity of developing countries to undertake development initiatives. It also reminds them that "there is life after foreign assistance," that many of their goals can only be realized beyond the relatively short time-frame of foreign assistance, and that development has to be based on a partnership with the assisted nations. Focusing on sustainability also encourages donors to respond to the long-term interests of the developing countries rather than on short-term donor priorities and it serves as a reminder that externally funded development investments should not exceed the capacity of developing countries to continue them, should not overwhelm their institutions or increase their debt burdens. From the perspective of developing countries, the concept is important because it helps them make better use of their own and foreign resources, and it reduces their chances of becoming too dependent on external resources.

The concern for long-range results of assistance is therefore fraught with complexity and yet has the potential for making a major difference within developing countries. The remainder of the paper will try to reflect these two characteristics of sustainability -- the fact that it is both difficult to carry out, and yet has the possibility of reshaping and enhancing the development process. The paper first explores the meaning of sustainability. Second, it reviews recent experiences in order to propose what donors and developing countries need to do to encourage lasting development. Third, it considers whether sustainability is a feasible goal for A.I.D. to pursue, given all the difficulties with which it is associated.

II. DEFINING SUSTAINABILITY

While there is broad agreement that development practitioners need to pay more attention to sustainability, there is less agreement or clarity about what the term means. One reason is that those who write about it frequently generalize from a single aspect or dimension of sustainability. A second reason is that definitions often confuse what sustainability is with discussions of how to achieve it.

Current studies often cite one of the following phrases as the basis for determining whether or not an activity is sustainable:

1. Covers recurrent costs or becomes self-financing;
2. Maintains a continuing stream of benefits;
3. Promotes organizational or institutional longevity.

Each of these phrases points to an important aspect of sustainability, but none of them taken alone provides a sufficient definition or description of sustainability. In addition, discussion of these elements often confuse the "what" of sustainability with the "how"; the factors that are assumed to promote sustainability are taken as the end. It is therefore worth rethinking the three criteria stated above.

1. **Covers recurrent costs.** Most would agree that developing countries need to increase their financial capacity to continue activities and that such commitment is an important sign that such activities are valued. It does not follow, however, that all development activities should become totally self-financing, at least in the short-term. In fact if self-finance is an essential criterion of sustainability, it could make it more difficult to undertake activities to support the poorest segment of society. And where development projects have spillover benefits, such as agricultural research, it is difficult to fully capture the returns. Finally, some projects may be worthwhile even if they do not generate full funding from within the country. An evaluation of health programs in Honduras, for example, found that when donor aid was discontinued many of the projects, such as malaria control, could not get government funds (Bossert and others, 1987:21). In spite of these reservations, sustainability clearly does depend on increasing the financial contributions of developing countries and beneficiaries and on diversifying financial resources.
2. **Continuing a stream of benefits.** Sustainability defined as continuing a stream of benefits has similar problems. Most would agree that it is the results of funded activities or benefits that need to be continued rather than the benefits themselves. For example, if a funded development project has disseminated nutritional information, sustainability concerns the continuation of good health practices, not necessarily whether a particular unit continues to disseminate information.⁴ The impact and not the benefits is the important issue. Focusing on the impact on the community rather than the benefits themselves leads one to consider whether the funded activities or benefits are making a difference and whether they need to be adapted if they are to be continued.
3. **Institutional longevity.** Organizational or institutional longevity is also a part, but not a complete definition, of sustainability. Relying on this characteristic alone may suggest that organizations or institutional arrangements are ends in themselves irrespective of whether or not they perform useful services. It confuses the goal of sustainability with the means to achieve that goal.

Sustainability therefore encompasses all of these factors, but is not identical with any of them. It can be defined as follows:

Sustainability refers to the ongoing, dynamic process of continuing the valued results of development activities.

Ongoing, dynamic process indicates that sustainability is more than producing benefits. It also includes the capacity and processes for bringing about results. "Ongoing" means that this capacity or process begins when development activities are being designed and continues throughout and beyond the funding period. "Dynamic" means that the capacity or process has to allow for change and adaptation.

Continuing stresses that the results of investments and assistance have to persist over time and means that sustainability can only be evaluated in a longer time frame than is often applied to funded activities. This time period will vary by activity since it takes longer to determine if an agricultural research program has produced sustainable results than if an oral rehydration program has done so.

Valued results is included to make it clear that the results of this process—such as the performance of an organization or changes in peoples' behavior—are the critical issue. They must also be "valued." This term means first that the results are wanted or needed. Second, it implies that people find the costs reasonable given the benefits they receive, the alternatives they have to forego, and the contributions they need to make. And third, it indicates that the results are desirable within given social, economic, political and physical contexts and that as these realities change, activities will be adjusted. This third point means that activities have to be continued in such a way that they conserve the natural environment and do not deplete the physical resources in a community or society.

The implications of this definition become clearer by comparing the concepts of sustainability and implementation. Development studies have rightfully been emphasizing the importance of implementation, recognizing that it is not enough to provide funds for an activity, that one also needs to ensure that developing countries have a capacity for carrying out the activities.⁵ Implementation, however, can be defined either narrowly or more inclusively. When defined narrowly, implementation refers to what goes on during the funding period and promotes a "life of project mentality." The guiding question from this perspective is whether intended activities or objectives are effectively and efficiently carried out during this time.

Others define implementation more broadly and recognize that implementation deals both with producing benefits and planning for their continuity. In this case implementation includes a concern for sustainability and is consistent with the definition proposed earlier. This second way of looking at implementation emphasizes that those interested in sustainability need to press their concerns early during the design and implementation process and then follow through to be certain they were responded to and that the capacity is developed to continue meeting them.

Even those who subscribe to the broader view of implementation, however, often find themselves thinking in narrower terms and focusing on what they can accomplish within the funding cycle. A longer-term view adds a threatening complexity to any undertaking and relies on estimates about what may occur in an uncertain future. It is only natural for implementors to concentrate on immediate issues, ones where they can reasonably estimate what needs to be done, and where they can expect to have some influence. Organizational studies confirm that implementors are inevitably drawn to emphasize what is most feasible and manageable, that they "satisfice". This tendency is reinforced as they become immersed in the daily organizational routines of carrying out projects or programs and as they have to cope with accountability controls from those providing the resources.

Given these pressures to think of implementation in the short term, it is worth comparing the implications of this short-range perspective with the added dimension that sustainability entails. A life-of-project mentality leads one to try to solve specific problems; to plan for concrete actions to be taken; to produce time-bound, tangible outputs; to get developing countries to accept and perhaps contribute to plans. Sustainability, however, leads one to devise a broad capacity for problem solving; to think in terms of longer-term programmatic approaches; to encourage developing countries to exercise responsibility for programs and not merely contribute to them; to emphasize less time bound and more intangible capacities and processes. In addition, sustainability poses several questions not normally addressed by the usual approach to implementation. For example, how can development practitioners design and implement activities to strengthen the capacity of those within the less developed countries to cope with their continuing problems and take advantage of their opportunities? How can designs and implementation strategies accommodate future needs and changing preferences? How can development efforts increase capacities to adapt over time as new pressures and problems arise? How can programs anticipate the long-term feasibility of technology transfer, or take into account ecological issues, and the impact of activities on the physical environment?

Consider how these questions might shape the design and implementation of a health project. If the designers were solely concerned with carrying out a specific project to address health problems in a community they would survey problems and design a strategy for resolving them. If they were also concerned with sustainability they would ask, "How can we put in place a system to continue to meet the health needs of people in this community, one that is valued sufficiently that it will generate resources and continuing support?" Those in charge would survey potential resources and health systems already in place to determine whether they could use and support these. They would also consult with community leaders about their needs and preferences. Since it is known that local communities respond more positively to curative than to preventative approaches to health, the designers would consider ways to include both. At the same time, curative approaches to health care often rely on imported supplies and hence are more expensive and difficult to sustain. Because it is difficult to weight all of these issues, the best strategy is to design a system for generating information about community health needs and preferences, for experimenting with different options, for learning about their effectiveness in improving health, and for putting in place management processes for adapting to the new information.

This example drawn from the health sector illustrates the differences between a perspective that focuses on short-term objectives and one that is concerned about a longer term capacity for continuing activities. The relationship between these two perspectives is actually very complex. On the one hand there are a number of ways in which a "life of project mentality" is compatible with sustainability. Effectively producing benefits within a funding cycle is obviously a critical first step to sustaining the results of those benefits. Those concerned with sustainability need to learn the

lessons of effective short-term implementation. At the same time, many implementation practices that deal with short-term results can make sustainability more difficult. There are understandable pressures on those in charge of activities to get results as soon as possible and to demonstrate the cost-effectiveness of investments. Sustainability, however, involves an "ongoing dynamic process" for getting those results. The potential for conflict exists because those who are focusing on carrying out immediate objectives may find it very difficult to forego quick results and invest in longer term capacity building.

This tension arose in A.I.D.'s Neighborhood Urban Services Project (NUS) in Egypt. The purpose of NUS was to assist local government districts to design, implement, and monitor services rather than rely on central ministries. NUS assumed that the availability of project funds would stimulate the districts to develop a capacity to design and carry out activities and technical assistance would strengthen those efforts.

In this instance, a "life-of-project" perspective would emphasize much money had been transferred to the districts and spent on effective local projects. A sustainability perspective would stress whether the districts were developing the organizations and processes to plan, finance and implement desired services now and in the future. Not too surprisingly, evaluators found that those in charge of the project were under great pressure to move funds and see that they were well spent. They had less time to spend on the more complex and time consuming process of training local leaders, developing alternative funding sources, and building stronger district organizations. Organizational and political pressures kept drawing implementors into a narrower focus, away from sustainability.

Sustainability therefore adds a difficult and complex set of tasks to the concern with implementing development activities in the short run. It means that practitioners have to adopt both a short-and long-term perspective and have to deal with the ways in which these two perspectives support and conflict with each other. It means they will need to be more purposive in putting in place effective ways to manage this increased complexity. The next section examines conditions for improving sustainability based on experiences in promoting development. It describes the major lessons learned about how to promote an "ongoing, dynamic process for continuing the valued results of development activities."

III. CONDITIONS THAT ENCOURAGE SUSTAINABILITY

What lessons have been learned that indicate how to encourage sustainable development, how to develop a capacity to continue valued results of funded activities? Three factors or clusters of variables emerge from both the development literature and program reviews as the most important influences on achieving sustainable results.

- (A) **Policy Incentives to Reinforce Long-Term Results.** Recent experience makes it clear that specific activities will not continue and will not have the intended effects unless public policies provide the necessary incentives for people and institutions to adopt changed behavior over the long run. At the very least public policy should not offer disincentives to achieve long-term goals.
- (B) **Institutions to Mobilize Continuing Support.** Continuation of valued activities and results depends on support at several levels including beneficiaries, affected communities, public servants, political elites and private sector entrepreneurs. It also requires additional resources, both financial and political. Sustainability therefore depends on institutions that can mobilize support and resources, both by strengthening those that exist and developing new ones.
- (C) **Management Systems to Set Priorities and Adapt Activities.** A capacity for continuing valued results requires that those responsible for them can establish and communicate long-term goals, that they collect information about the effectiveness of activities and the changing preferences and needs in a community, and that have procedures to adapt activities and services in light of new information and changing circumstances.

The remainder of this section examines each of these factors in turn.

A. Policy Incentives to Reinforce Long-Term Results

Numerous studies illustrate how public policies encourage some behavior and discourage others, and suggest that policies need to be examined with an eye to the incentives they offer to support and reinforce long-term development results. This section reviews policies in four areas: macroeconomics policies, public finance policies, social policies, and policies to preserve and enhance the natural environment.

Macroeconomic Policies

Considerable attention has been given recently to the need for macroeconomic policies to be consistent with short-term implementation objectives. They also need to encourage individuals and organizations to continue the valued results of activities into the future. Of particular importance is to put in place policies related to currency valuation, import and export restrictions, interest rates, and foreign investment that promote general economic growth.

Without growth, developing countries are compelled to adopt austere national budgets that curtail new development investments and minimize public sector contributions to recurrent costs.⁶ Research on the issue of recurrent costs shows that policies that create an economic environment conducive to economic growth will in turn make it easier to meet recurrent

costs of development projects. The lesson of experience is that national level decision makers need to be included in discussions of long-term development choices.

Related to the concern over recurrent costs is macroeconomic policy as it relates to the private sector. Inefficient parastatals are often a major drain on governmental revenues, reducing funds available for development-related activities. Equally, macro policies discourage private sector activity and thus fail to capture the energy and innovation that can come from this sector. For example, central governments frequently have rules discouraging private sector activity, such as disincentives for private sector investment (Bahl and others, 1987). Or they may have policies opposed to user fees or other "market like" solutions on equity grounds, overlooking the fact that the choice may be between having a project that is sustainable, but which excludes the poorest, versus not having a project at all.

Macroeconomic policies are also important in that they encourage individuals to continue to support long-term development goals. Consider a development project to promote research on new agricultural practices. From a short-term perspective, the research project may result in new information about a particular crop and farmers may be encouraged to use the information if it comes from extension workers or a local community organization. In order to insure that they continue to apply the new research or technology, however, it is necessary to have public policies that insure that the farmers themselves benefit from the practices. If pricing policies keep prices for the commodity depressed then farmers will be discouraged from applying the research results and the research program is unlikely to have any sustained impact. The issue is whether public policies are consistent with whatever long-term goals are being pursued.

Public Finance Policies

While sustainability does not depend on complete financial autonomy, it clearly depends on increasing the ability of local governments to raise additional resources. The second supporting condition for sustainability, institutional longevity (to be discussed below), explores ways in which communities can increase their tax or other contributions to development efforts. This section describes how many developing countries have public policies in place that make it very difficult for regional and local governments to develop additional ways to raise resources.

Two kinds of policies have proven to be particularly critical—policies that discourage development officials from spending resources on maintenance, and policies that limit local government finances. In both cases there are political reasons for the limitations. Central authorities often have limited powers. Therefore they need to protect the power they do have, and use their resources to increase and reward their supporters.

Developing countries typically have policies in place that favor capital construction and make it difficult to apply funds to maintenance. The latter is frequently equated with "unproductive" administrative overhead. The

reason may be political. Capital projects are more likely to translate into political benefits and support in the short run, while maintenance is less visible and it is more difficult to garner any political credit from meeting recurrent costs. The problem is exacerbated because capital construction budgets seldom include recurrent costs. Meerman's description of the decision-making process in many developing countries is particularly apt: "The Ministry of Planning concerns itself with investment and its finance, frequently relying on extrabudgetary resources such as foreign loans, while the Ministry of Finance may be quite unaware of the new recurrent costs that it will later be called upon to cover once the capital is invested" (1983: 41).

A second problem is that central government policies often limit the kinds of revenue that local units can even consider. The taxes assigned to local government are, in general, low yielding and inelastic, while central governments reserve for themselves the more productive tax instruments. Just as tax assignments are usually made with little regard for their yield and elasticity implications, localities are commonly given little or no autonomy in determining whether they can use the assigned instruments. Instead, tax rates are imposed centrally, making decentralized decision making more difficult. If local governments are to bear a greater share of the burden of recurrent costs, policies must be formulated to provide them with more productive and elastic revenue sources along with the autonomy to alter tax rates to adjust to local preferences.⁷

Social Policies

A third type of policy concerns equity and distributional issues and deals with the social dimension of development. Many development projects are specifically designed to improve the life opportunities and choices of the poor. In the short-term, governments may offer their strong support for such efforts. The long-term issue, however, is whether or not governments will support activities that empower the poor in the society and that may even increase the demands that the poor will bring to government.

For example, consider the role of women in development. An expanding body of literature describes the important contribution women make, particularly in the agriculture and small enterprise sectors. The lessons of this literature is that activities need to be designed that respond to women's specific needs and concerns. In agriculture, extension services that rely on women's groups and recognize that women's family roles often preclude certain approaches such as attendance at residential training programs, have been much more successful at reaching women farmers than extension services that have no such focus (Walker, 1987). Sustainability here means building on existing institutions and roles rather than creating a new ones.

Similarly, in the small enterprise sector projects need to explore options particularly attractive to women if they want to involve them. Kitchen gardens are an example (Tendler, 1982). While women may be very successful in increasing their income from such gardens in the short-term, the long-term sustainability question is whether public policies support an increased

role for women in the economic life of a community. For example, is credit available for women as well as for men? If these supporting social policies are not in place, the small scale enterprises will not be sustained.

Another example concerns small farmers. If the goal of a development activity is to achieve more equitable distribution of some benefit, the question is whether existing policies are compatible with equitable distribution in the long run. Assume that a credit program is designed to increase credit to small farmers. Those concerned with the sustainability of the program would want to ask about the effect of relevant social policies. Do prevailing interest rates encourage lenders to make agricultural credit accessible to small farmers? Do the policies of the extension system encourage poorer farmers to compete for, and use, credit?

Ecological Policies

Development practitioners have become vividly aware of cases where development assistance has depleted natural resources and undermined the long-term capacity of the natural environment to renew itself. Increasingly projects and programs are being asked to take ecological factors seriously and to design policies that provide incentives to sustain the natural resources in an area.⁸ The issue is what kinds of policies are needed to make certain that these efforts will have a long-term, lasting effect. Two levels are particularly relevant--the policy making capacity of governments to address long-term ecological issues, and the need for policy incentives to induce long-term changes in individual behavior.

A specific development activity may try to be very innovative in dealing with ecological concerns. At the same time it is often difficult to put in place the kind of policy needed to sustain the activity over the long-term. It is especially difficult to formulate effective ecological policy because those concerned with the environment tend to be organizationally isolated, while ecological problems overlap a number of sectors. Generally, responsibility for environmental matters has been isolated in ministries with no control over key sectoral ministries such as agriculture and industry. Since those responsible for environmental impact have been unable to insure that sectoral policies and practices take environmental effects into account, they end up being "reactive" -- proposing REforestation, REclamation of desert lands, REbuilding urban environments. In the meantime, development activities have ecological results that spill over into a number of sectors--deforestation increases soil erosion and siltation; air pollution creates acidification that kills forests and lakes. As a result, no single unit is willing to assume responsibility for the impact of development on natural resources.

Policies to sustain efforts to improve the natural environment need to deal with the lack of any responsible authority for making and implementing ecological practices. First, policies are needed to promote integrated planning and cooperation across sectors and insure that ecological concerns are factored into development plans from the outset. For example, "sustainable agriculture" policy would examine farming practices from agronomic, microeconomic, and ecological perspectives, and promote

appropriate technologies such as renewable energy sources or low-resource agricultural practices. Second, governments need to establish policies holding sectoral agencies responsible and accountable for ensuring that their policies, programs, and budgets support development that is sustainable both in economic and ecological terms. For example, it is important to try to integrate efforts to increase production with policies to conserve resources.⁹ Third, conservation may raise production costs, making it necessary to develop regulatory policies to insure that some will not profit from ignoring the physical environment.

A second area that is central to insuring the sustainability of good ecological practice is to put in place policies that encourage individuals to change their behavior towards the natural environment. According to a recent study of ecological problems in Africa, projects to deal with specific problems such as deforestation, will only be successful in the long-run if they are supported by an effective land-use policy (Timberlake, 1985). The economic basis for this reasoning stems from property theory. It assumes that individuals are more apt to conserve property when it is taken out of the public realm and when they are able to directly benefit from conservation efforts. Therefore, instead of designing a reforestation project, or regulating how many trees can be cut down, governments should give people an incentive to grow and protect trees by distributing seedlings to individuals. The fact that they own the trees gives them an incentive to conserve the trees for their future productivity (Thomson, 1981: 119).

Current development practices in Haiti provide an example of how critical such incentives can be. An A.I.D.-funded project distributed seedlings to farmers to encourage them to plant more trees in the seriously ravaged hillsides. The rationale was that the farmers would be willing to plant them because they would then be able to use them for firewood or construction as needed. In the meantime, however, government policy provided a classic disincentive to the farmers to participate in the program. Existing policy said that farmers would be penalized if they cut down a tree, even one they had planted themselves. By aborting the incentive to the farmers to plant more trees the policy effectively undermined good ecological practices. Fortunately in this case the law was not enforced and the project has been continued with great success.

B. Institutions to Mobilize Continuing Support

A second important condition for sustaining the "valued results of activities" is to use assistance to develop an institutional capacity for continuing them. While a short-term implementation perspective asks which combination of institutions is most effective in carrying out activities, a sustainability perspective asks what set of institutions can best mobilize continuing support and generate additional resources. Such institutions do not naturally evolve in response to a need for them but have to be purposively nurtured throughout the implementation process.

Experience suggests the following five propositions about mobilizing institutions. First, institutions are more apt to marshal long term support for development goals if they emerge out of a collaborative process and are not imposed. Second, in-country institutions, both public and private, are more apt to support and sustain development activities when they have control and ownership of the activities. Third, where possible, responsibilities should be delegated to units lower in the hierarchy. Fourth, there needs to be continuing support and linkages provided to implementing units in order to maintain their commitment. Fifth, it is important to develop a variety of financial resources, drawing from beneficiaries, local communities and the private sector.

Collaboration on Institutions

The literature is quite clear that there is no single model of effective institutions. A recent evaluation of the institutional development efforts of 12 U.S.-based private voluntary organizations (PVOs) came to a conclusion that is implicit in most of the case studies of institutional development (Huntington, 1987). It found that institutional development works best when it is an open-ended process

rather than a blueprint replication of a known structure. It is a process wherein (an external party) works with third world professionals in a partnership that is feeling its way toward what kind of organization, or what variation on the general model of organization, will be viable in the particular country setting.¹⁰

The evaluation goes on to describe the variety of different institutions that had evolved among these 12 PVOs and the variety of relations established between local units and the resource organizations. The critical element in determining whether they continued their activities was the fact that all emerged out of a collaborative process.

The value of a collaborative process also applies between sectors as well as within sectors. Until fairly recently discussions of the public and private sectors have been couched in terms of "either/or". Yet, more recent experience suggests that it is identifying the proper mix of private and public sector activities that is most conducive to sustainability (Nellis, 1986; Lamb, 1986; Morrison, 1986; Lowi, 1985).

It is quite clear that under certain circumstances such traditionally governmental activities as education, health, drainage, transport, and even agricultural extension can be effectively organized through market mechanism. Moreover, neoclassical economic theory points out that the private sector is particularly good at assessing the demand for an activity, exploring ways to market it, mobilizing and responding to demands in the community, and generating the financial resources to continue producing a service once donor funding is ended. These characteristics of markets suggest that they deserve a greater role in discussions of sustainability.

It is equally clear that markets alone are clearly not the answer either. While private organizations are particularly sensitive to cost effectiveness and efficiency issues, public bodies may need to play a monitoring or facilitative role, acting as a collaborator with private sectors groups to ensure that ongoing activities respond to development goals.

Collaboration between the public and private sector provides an opportunity to allow both institutions to do what it does best. An example of this type of inter-sectoral collaboration comes from Senegal. A governmental regional development authority decided to turn to local banks to handle a credit program intended for poor farmers. Because of their capacity for managing loans, the banks improved the chances of sustaining the credit program. However, the banks were reluctant to make high risk loans, and failed to provide as much assistance to the poorer farmers as intended in the program goals. Those in charge of the program, therefore, designed special incentives (loan guarantees) to encourage the banks to assist the poor.¹¹

Institutional Ownership

Those in developing countries are more likely to continue development efforts if they are responsible for them from the outset and have a sense of ownership in what is being done. Such responsibility and commitment is partially an institutional issue and depends on who has control and ownership of the results. A number of cases tell us that donors often play such a dominant role or retain sufficient controls over activities that those within the countries think of them as donor activities, feel little ownership of proposed activities and charges, and may not exercise the responsibility they possess. A recent review of the extent to which health programs in Honduras were sustained beyond a five year period noted that family planning and nutrition projects were not continued primarily because they were viewed as "A.I.D. imposed projects." The evaluators observed that:

The most sustained A.I.D. projects were either those in which U.S. influence at the initiation of the project was minimal or those in which the goals and activities were negotiated and mutually defined. Imposed projects were not only not sustainable, they may have generated such enduring resentment as to inhibit future project (Bossert and others, 1987: 16).

One way to encourage ownership is to ensure that assistance does not bypass ongoing organizations. Many donor assistance efforts have been criticized precisely because they fail to do this and instead "projectize" development. The critics are saying that donors frequently set up special organizations or project units and assign them responsibility for a specific activity. This encourages the short-run "life of project" mind-set discussed earlier because it bypasses the government institutions that will have to assume responsibility for them in the long run. The paradox is that project management units may be more effective at initiating an activity. However, by isolating responsibility it then becomes more difficult to sustain these efforts (Honadle and Walker, 1981). The recent evaluation of health programs in Honduras came to a similar conclusion. It found that those carried out

through regular program units were more apt to be sustained than activities housed in separate project units (Bossert and others, 1987: 17).

Several studies suggest that one way to resolve this tension is to design projects to influence activities carried out by program agencies or by the private sector (Korten, 1980; White, 1987). For example, projects can be used as pilots or experiments for replication in a broader program. Or assistance can be given directly to program agencies to help them redesign their activities (F. Korten, 1982; Hammergren, 1983; Brinkerhoff, 1985). The emphasis throughout these studies is on working through developing country institutions rather than relying on a few key actors to replicate project lessons. The problem is that many projects are relatively too small or insignificant to have any real impact on larger scale programs.

Sustainability of the results of activities also depends on whether the affected communities and members of both public and private sectors have an ownership of development goals and activities. If they do not, support and resources will be greatly curtailed.

Devolved Responsibility

Devolving responsibility for development activities to local communities can promote sustainability by building a strong base of support and ownership of activities. As discussed above, if groups or organizations have an ownership of a particular activity they are more committed to continuing it. The Devres (1987) analysis of A.I.D. activities is peppered with references to the value of establishing and relying on local community organizations to sustain activities. Because they exhibit certain characteristics, local institutions can improve the chances of sustainability in a number of ways.

Assumes Responsibility

Strong autonomous local institutions are more apt to assume responsibility for continuing an activity because they can tailor activities to local circumstances and give people more ownership of what is being done. An example is found in the experiences of OICI (Opportunities Industrialization Centers International) which establishes training centers in Africa and has an outstanding track record for creating independent, indigenous organizations that continue their training programs once A.I.D. funding is ended. OICI refuses to bring the training program into a community until a committed local group requests them to come in and assumes responsibility for it. It then assists that group to develop a strong institutional capacity to carry out the training.

Incorporates Traditional Roles

Decentralization makes it easier to take advantage of traditional organizations within a community, units that are more apt to assume long term responsibility for continuing valued results. For example, health programs can work with and through traditional midwives or health workers. There is considerable evidence that development practitioners are too ready to start new organizations without strong community roots, and hence less

apt to be continued when their funding is ended. Timberlake's (1985) study of Africa documents how existing local organizations carry out significant conservation and development activities.

Captures Social Energy

Local organizations are in a better position to capture what Uphoff (1987) calls the latent "social energy" in a community. His theory that this energy can be tapped when people work through organizations that they control has been tested in the Gal Oya Irrigation Project in Sri Lanka. Local workers were trained as organizers, moved into communities, encouraged local farmers to set up their own organizations, and enlisted them in designing, overseeing and maintaining an irrigation system. Instead of responding to expressed preferences, the organizations generated new ones and mobilized the community (Uphoff, 1985).

Assigns Responsibility to Those Who Will Benefit

Decentralization to local organizations assigns responsibility for activities to those who will directly benefit from them. There is substantial behavioral evidence that those who benefit directly from an activity will have the greatest motivation to continue and contribute to carrying it out. For example, consider various ways to control the activities of better-off trawler owners and keep them from depleting fishing grounds. A standard response is to have the government set regulations about who may fish where, and then patrol the fishing grounds to protect the interests of the poorer farmers. A study of fishing rights in a Philippines community found that this approach had very little chance of making a difference over the long-run. A much more effective approach was to organize the poorer farmers and let them, the immediate beneficiaries, assume responsibility for monitoring the fishing grounds (Bailey, 1984).

Increases Local Capacity

Local organizations make it easier to involve community members and beneficiaries directly in the implementation process and develop their capacities to carry out and maintain benefits. In the short run such participation can create considerable complexity and make it more difficult to continue activities. In the long run, however, it may ensure that people are more willing to contribute to activities and hence to sustain them. For example, a Basic Villages Project in Egypt provided \$200 million of AID funds to construct roads, water supply and sewage services. The project channelled the funds through local councils and also provided training to improve the management capacity of councils. The purpose was to enable the councils to select projects, then plan and implement rural activities with the available loan funds.¹²

Supportive Linkages

It is equally important to provide support and resources to local units. The Devres (1987) review of A.I.D. project evaluations lists a number of cases where activities were not sustained and repeatedly notes a lack of

supporting linkages. For example, a groundwater project in Somalia had poor linkages with regional bodies and local community groups responsible for well operation and a health education project in Jordan was not linked to the national health strategy of the Ministry of Health. Neither are likely to be sustained. By contrast, a planning project in Egypt is more likely to remain viable because it has been relatively successful in developing links with government ministries and parastatals, and has recruited talented staff by working closely with training institutions.

These cases suggest the need for central and regional administrative units to rethink their traditional style of relating to and working with decentralized units, and to explore what some have called a "trade association role." They would move from a "doing" to an "enabling" role, offering services to local units that they are not in a position to do themselves. For example, instead of providing project designs or directing project activities, supporting units can offer research and analytic support to local organizations to develop their own plans. An evaluation of A.I.D.-assisted PVO activities, found in fact, that as local affiliates become more autonomous they need even more sophisticated technical support and greater encouragement from prior donors. It describes how one PVO continues to offer such advice and to sponsor workshops to assist and inform local organizations even as they move towards financial autonomy (Huntington, 1987).

Mobilization of Additional Financial Resources

Responsible units need to find resources to meet recurring or operating costs. While it is tempting to equate sustainability with the willingness of national governments to cover these operating costs, national governments are frequently unable to take on additional activities. There are also other potential resources such as additional taxing powers, cost recovery arrangements such as user fees, selling products or services, in-kind contributions from the community, or applying for contributions from other donors.¹³

The evaluation of institution development efforts among PVOs receiving A.I.D. funding (cited earlier) concluded that while it was unreasonable to expect many community organizations among the poor to become totally self sufficient, much more could be done to help them develop a variety of financial resources. Several of the individual case studies illustrate how funding reductions, when carefully planned for, stimulated local groups to become more effective and assume more responsibility. For example, the report notes that "FSP/Soltrust in the Solomon Islands is also a stronger institution today than it was a few years ago because it was forced by U.S.A.I.D. budget cuts to strengthen its strategic planning, reconsider seriously its program focus, and creatively seek funding from diverse sources" (Huntington, 1987: 25). The same report adds however that the institution has continued to be successful only because these funding cuts were accompanied by continued technical assistance and moral support from the donor PVO. The report also describes workshops on resource mobilization sponsored by yet another PVO, and notes that these have had a very positive impact in encouraging more independence among the funded groups.

There are a number of strategies for dealing with recurrent costs, one of which is to contract out activities to the private sector. Contracting out may be more economical than relying on public sector provision and places primary responsibility for sustaining activities on the private sector. A recent study of contracting for services in Honduras, however, raises an interesting qualification. Lim and Moore (1987) found that private contractors were marginally more cost effective than public sector providers. At the same time private sector contractors were not oriented to get local communities to contribute to development activities. As a result, private contracting reduced overall cost effectiveness in comparison with those cases where public providers had involved the community in contributing to the services.

Another strategy is to generate project-specific revenue by having recipients contribute to recurrent costs through user fees or contributions. User fees are an attractive and logical response to the sustainability issue because those who directly benefit from the services share some portion of the costs. There are a number of examples of the benefits of turning to user fees. For example, Liberia has established a revolving drug fund. Clinics are issued drugs, which they in turn sell to the community. With the sales revenue, the clinics pay back the value of the issued drugs. The clinics have thus been able to generate enough funds to support and maintain themselves independent of external aid (Development Assistance Committee, 1987).

While user fees can encourage sustainability, they have limitations. An evaluation of health programs in Honduras found that project effectiveness was a better predictor of sustainability than the recovery of costs through user fees (Bossert and others, 1987: 21). Furthermore, fees are appropriate only when users are easily identified and when non-payers can be economically excluded. User fees cannot fully finance projects designed to redistribute services to the poor, or ones that have significant spillover benefits. One way to handle the equity problem is to base user charges on the ability of the user to pay. But the administrative costs of correctly applying such prices can exceed the benefits of such discriminatory pricing.¹⁴ Nonmonetary contributions are another potential way to meet recurrent costs, particularly in rural areas of low-income countries. While contributions of labor or land are usually provided during construction stage of infrastructure projects, it is possible to continue such donations to maintain rural roads (Miller and Kahn, 1986) or irrigation projects (Korten, 1980).

Another institutional strategy for mobilizing resources is for local governments to assume some of the recurrent costs. Their ability to do so is marginal, however, since central authorities usually control and limit the revenue raising ability of local units. Local governments can explore what potential they do have and put together a combination of local taxes or fees and intergovernmental transfers. There are good reasons to believe that when local residents are sure that the revenues will be used locally to benefit themselves, they are more willing to pay local taxes than they are when the money goes to the central government. For example, a survey of villagers in

Burkina Faso (then Upper Volta) revealed that 93 percent of the respondents were willing to pay a tax when the receipts would be used to benefit the community.¹⁵

C. Management Systems to Set Priorities and Adapt Activities

Because a concern for sustainability adds to the complexity of the development process, it greatly increases the importance of effective management systems. Cases of successfully sustained activities, however, offer conflicting evidence about the kinds of management practices that are most effective. Some cases indicate the value of more structured and rigorous practices while others testify to the value of flexibility and openness. The reason for this apparent contradiction is that management systems really have to do several different things at once. This section describes three sets of balancing activities: First, management systems have to simultaneously deal with their performance in the short-term even as they plan for continuing the valued results over the long-term. Second, they have to adapt to changes in their situation and also look for opportunities to influence and change their situations. Finally, they need to set up practices that on the one hand are uncomplicated and use as few resources as possible, but are also able to effectively monitor results and manage staff.

Balancing Short and Long-Term Perspectives

Management systems to promote sustainability have to deal with immediate operational problems in designing and carrying out activities, and also have to consider what is needed to plan for their long-term continuity. They continuously need to identify and solve problems that arise during the course of implementation. They also need to anticipate and plan for maintaining and continuing the positive results of what they accomplish. The two tasks really have to be done at the same time, meaning that managing for sustainability is not an add-on, but has to be incorporated into the ongoing implementation process. One problem is that these two perspectives are often incompatible with each other. Immediate problems may become so compelling that managers focus more on those and fail to develop a capacity for continuing them. Or managers may find it is more cost-effective in the short run if they produce benefits directly rather than take the time to develop a local capacity with all of the uncertainty and difficulty that implies.

An evaluation of CARE and A.I.D.-funded water projects in Tunisia illustrates the importance of incorporating a concern for long-term results into the ongoing implementation process. It also shows the problems that can arise when managers have to deal with both short-term results and long-term continuity. The evaluators found that the water projects were only partially successful in providing potable water in rural areas due to a number of technical and cost-related problems that arose during the project period. They also found that little attention had been given to maintaining the projects. Finally, they pointed out that the local governments and community groups were very ambivalent about the projects and seemed less interested in making the water potable than in increasing the supply of water (Bigelow and others, 1980).

What kind of management system could best ensure sustainability in this instance? Managers would need to deal with their short-term operational problems at the same time that they planned for sustaining an improved water supply. They would need to set up effective systems for collecting information about water supply, for monitoring results, for experimenting with techniques for managing costs, and for introducing new technologies into the community. At the same time they would have to take a longer time-frame into account and organize a system with a capacity for maintaining the water projects. Developing such a capacity would probably require working closely with community members to find out what their needs and preferences were and what kind of water system they would be prepared to support. But this kind of information would have to be collected early in the process and guide the original design of the system. Sustainability would therefore depend on putting in place a responsive and adaptive management system that is not an add-on, but that is part of the ongoing implementation process during the life-of-project period.

Unfortunately operational problems can overwhelm managers with their immediacy and make it difficult for them to focus on this kind of capacity building. Once a project is designed around the goal of making water potable, it is difficult to change it in light of new evidence about community preferences, particularly when donors and experts are committed to the goal of safe water. At the same time, a sustainability perspective would emphasize the evidence that the new wells were ineffective and that diseases had actually increased because people had stopped boiling water. If they included sustainability as a criterion, managers would be led to revise and adjust their original plans, even as they looked for ways to develop more effective and cost effective water systems.

Balancing Responsiveness and Strategic Thinking

The lessons are clear that sustainability is very unlikely unless activities are responsive to changes in preferences, technologies, and situations, and are continually adapted in light of these changes. Responsiveness and adaptability have in fact become hallmarks in any discussion of management, whether it is concerned with a short or a long-term perspective. Sustainability, however, also requires managers to provide a focus and purpose so that they can look for ways to change those conditions that constrain them. They need to balance a willingness to adapt to new information and ongoing results on the one hand with an effort to influence and change conditions that make development difficult, on the other.

Recall the example of the Tunisian water projects discussed in the previous subsection. Managers first needed to become aware that there was very little interest in potable water. They then needed to find a balance between adapting the project to local preferences and interacting with local officials and community leaders to explain the values of potable water and try to change their attitudes. The result would probably be some adjustments in project objectives and some concessions on the part of local officials and beneficiaries.

First consider the importance of adapting to changes in one's situation and to new information. Studies emphasize that managers need to be responsive to cultural values and socio-economic conditions as well as to technical and financial information.¹⁶ The former concerns are easily overlooked as noted in a recent review of World Bank funded projects. "Time and again, a good number of development projects are designed technocratically, without an attempt to understand the social fabric of the area or make the project compatible with, and acceptable to, the socio-cultural context at which it is directed" (Cernea, 1987). It may be possible to implement an activity in the short-run that is not appropriate to its setting, but it is very unlikely that the same activity would be sustained unless it took this setting into account. Many family planning programs have not been continued, in part because they have not addressed local traditions nor appreciated a general suspicion of western values concerning fertility.¹⁷

The problem is that the information important for continuing activities is fraught with uncertainty. It is often hard to know what people need and want in the present or to gather the best available information about existing technologies. It is even more difficult to anticipate future needs, preferences, and technologies. In the face of these difficulties Hirschman's (1967) observation is worth remembering. He points out that both opportunities and problems may arise as activities unfold but that it is difficult to foresee either of these. For example, one could argue that it is unwise to launch projects unless the developing country has a high probability of generating enough funds to continue them. This criterion would be shortsighted according to Hirschman because it is hard to estimate what resources will be forthcoming. Projects may become more cost effective. Beneficiaries may find ways to continue them. Strong clienteles could put pressure on the governments or the private sector to continue them. Because of the subtlety of cultural and social information, and the uncertainty about the future, managers cannot possibly collect all of the information they need when they are designing activities.¹⁸ While a short-term approach to implementation emphasizes the need for information to arrive at answers to immediate problems, a sustainability approach is more interested in establishing procedures for acquiring and using information over time.

A number of cases suggest that a collaborative approach to management is one procedure for gathering the kind of information needed for adapting activities. Collaborative or team approaches can be used at several levels—between donors and host country units, between different units involved in carrying out an activity, among implementing staff, and between staff and beneficiaries. The point is to involve those with some responsibility or stake in an activity in the implementation process. Collaboration promotes sustainability in several ways: It gives more people a stake in an activity, and presumably the more people have ownership in an activity, the more support it can marshal over the long run. It also increases the amount of information and the number of perspectives that are taken into account.¹⁹ It offers an "insiders" sensitivity to the political context and the particular needs and conditions of that country or area. The effect is to nurture local resources rather than simply transfer trainer knowledge. There are a number of case histories of A.I.D.-supported projects in Tanzania, the Sahel and

Indonesia where practitioners have experimented with such team-planning meetings and action-planning workshops and found them to be very positive.²⁰

Collaboration can be extended to include field staff in the management teams, a tactic that increases the information available to managers. Field staff are often in the best position to learn about the effects of activities and about resources and preferences in the community. Studies indicate, however, that unless they are encouraged and rewarded for communicating such information to higher level staff and supervisors, this opportunity for learning will be short circuited. A number of experiments (Chambers, 1984; Leonard, 1977) draw on such techniques as "management by objectives" to include field staff more directly in implementation plans. Others (Honadle, Walker, and Silverman, 1985) write about the importance of designing incentives to encourage staff to focus on their performance. All of these are efforts to enhance the learning in an organization by systematically collecting needed information, and by encouraging all those involved to have a greater stake in the effectiveness of what they do.

Even as managers look for ways to collect information about results and changes in their situation, and adapt their activities accordingly, they also need to establish priorities and look for ways to influence their situations rather than simply adapt to them. Current management studies refer to the value of strategic management, of coming to an agreement on reasonable objectives and performance targets, and using these to provide some structure and guidance to the implementation process.²¹ Strategic management and priority setting also provide a vantage point from which to bring influence on ones setting. The collaborative practices described above have primarily been used to get a group of involved individuals to agree on immediate objectives. Research needs to be done on strategies for using teams to develop longer-range goals and explore opportunities for changing ones situation in light of these goals.

A number of studies stress that strong and effective leaders offer a second way to develop priorities and infuse a sense of purpose into an organization. Virtually every discussion of sustainability in fact emphasizes that continuing activities depends on effective leadership (Devres, 1987). Those studies that go on to give some content to the concept of leadership almost always are talking about something other than management skills. They mean the ability of those in charge of activities to communicate a sense of purpose and vision about the future. Studies of development activities promoted by private voluntary organizations emphasize that their greatest comparative advantage in promoting sustainable development stems from the value commitments of their leadership and staff and their ability to communicate the values to others (Tendler, 1982).

The problem is that many management models promoted within the development context have emphasized technical competence and given little attention to leaders as a source of values and commitment in an organization. Often this bias against personal leadership means that project and program designs overlook important leadership models within different cultures and discredit what is indigenous.²² The lesson for sustainability is that implementation strategies should include plans for developing leadership as part of the

initial assistance effort, and not merely as an add-on before ending the assistance. The same plans should include discussions of the values implicit in development activities and explore ways to communicate these more effectively.

Balancing "Lean and Mean" Management Systems

Thus far the discussion has dealt with how managers need to balance short-term and long-term perspectives on implementation and how they need to balance a willingness to adapt to changed circumstances with an effort to alter constraining circumstances. They also need to find a balance between management systems that are simple and fitting to their situations with ones that are effective and able to take decisive action. The capacity of management systems to continue the valued results of activities obviously depends on how appropriate they are for the work they have to do and for the setting they are in. This means first of all that management and information systems need to fit with the capacity of the institutions and the training of the individuals who will be continuing them. Practitioners warn against overly elaborate systems that exceed the capacities of those who will be using them. Ingle, for example, refers to "low resource management systems," noting that systems that do not depend on vast and complex resources are more apt to be effective and to be continued.

Leanness also applies to information systems. The preceding sections describe the need for information about the environment, about changing preferences, and about the values of collaboration. Each of these could generate very complex, interactive systems and procedures. The lesson from a number of cases, however, is that they need to be kept as simple and straightforward as possible. Many procedures for handling information, for example, are patterned on systems developed in the west and are driven by methodological rigor rather than common sense information needs. As a result they tend to be far more complex than necessary. A number of studies report that usually fairly simple descriptive data are adequate for project purposes, data that can be gathered fairly easily through "rapid reconnaissance" rather than elaborate surveys (Chambers, 1981; Honadle, 1982). Such recommendations become particularly important in cases where local field units or community organizations are going to assume responsibilities for managing or maintaining project activities.

The same observation applies to the design of activities. A number of studies confirm that units with inexperienced personnel and rudimentary systems for collecting information and managing personnel will do much better when their tasks are kept very specific and concrete. Such clearly defined activities can provide some valuable structure for implementing organizations. It is easier for managers to provide feedback about results and use it to guide and reward those involved in an activity. Evaluators of OICI-funded training projects in Africa attribute their excellent record for sustainability to two characteristics. First, as noted in the prior section, local institutions have assumed full responsibility for them. Second, the original project design defines their goals in very "lean" terms. Local units are given very clear and specific goals and managers

initially focus on these and add supporting activities only as they gain experience and confidence (Robert Nathan, 1987).²³

A project in the Dominican Republic to provide loans to small enterprises illustrates how project managers can successfully adapt to changing situations while maintaining a simple and straightforward management system. Managers learned that loans were being repaid at low rates and that their procedures for disbursing loans were complicated and costly and led to a lot of delays. To avoid these problems a system was set up allowing clients to "select" themselves for loans rather than relying on staff. Very small loans were given out, and as people repayed them on time, the loans were increased. Further the successive loans were given out very quickly, further motivating timely repayment. Recently, staff have further adjusted the system to tailor loans to financial needs as reported on business records rather than to repayment rates. Throughout these changes managers have maintained a consistently simple and easily replicable set of practices (Greene and Reichmann, 1987).

Even as they try to remain appropriate and to fit their setting, implementing units need to develop some "mean" practices that enable managers to closely monitor costs and handle logistical problems very closely. A recent analysis of the problems in sustaining health projects found that many of their problems stemmed from operational difficulties and not simply from resource shortages. The study noted that common failures include "vehicle and other equipment malfunctioning and down for long periods of time without repair; non-delivery or untimely delivery of vital supplies; little or no supervision of facility staff; diversion of supplies to improper channels..." (Stevens, 1987). To deal with such problems managers need to establish procedures for monitoring supplies and costs, and holding staff accountable for responding to the information and making changes.

The area where "mean" systems are probably most needed is in handling finances. Corruption is rife in many developing country situations and the result is not only poor performance, but a decline in confidence that can seriously undermine any chances of continuing activities. The key to an effective system to monitor and control finances is to ensure that financial information is tailored to management needs and used in management decisions. For example, a traditional financial system might keep records on how much money is spent on trucks. A management oriented financial system, however, would show how the money spent on trucks contributed to the effectiveness or to the sustainability of the program (Kettering, 1985).

It is possible to combine a "lean" and appropriate management system with one that is active and "mean" in monitoring costs and impacts. The organization that sponsors micro-enterprises in the Dominican Republic described earlier, and that has an outstanding sustainability record, provides an example. It combines a very lean staff and offers minimal training in order to keep costs as low as possible and to remain simple and focused. At the same time it stresses record keeping, performance and cost monitoring, and short term planning and is known for its effectiveness (Greene and Reichmann, 1987).

IV. IMPLICATIONS OF SUSTAINABILITY FOR A.I.D.

A. Guidelines for A.I.D.

The preceding discussion of the conditions for promoting sustainability suggest a number of guidelines for donors agencies in general and A.I.D. in particular. The recommendations are organized under A.I.D. policy, relations with developing countries, policy assistance, institutional development, recurrent costs, management systems, and procedures internal to A.I.D.

A.I.D. Policy

1. Give explicit attention to sustainability at the outset of project development and continue doing so throughout the implementation phase. This means that sustainability has to be taken into account early in the design process and be included in strategies for implementing activities.
2. Require that sustainability be included in proposals and evaluations. For example a review of 13 evaluations of primary health care projects in 1987 proposed that the Agency should begin to monitor how well the projects were moving to "local self-reliance," in addition to determining whether they are improving health standards (Danforth, 1987). And the RFP for Child Survival Grants, states that proposals will be evaluated according to whether they consider what is needed to sustain effective health activities following the grant period. These examples need to become general practice throughout the agency.

Relations With Developing Countries

3. Give host country leaders and institutions -- both government and private sector, both national and local -- a lead role in designing and implementing development activities.
4. Consider a move to give more block grants and program assistance rather than project specific funds. One model that should be considered are the matching grants given to PVOs that have been evaluated very positively.

Policy Assistance

5. Help host country leaders develop and apply policies that stimulate their economies and reward individuals for participating in collective development initiatives.

Institutional Development

6. Identify, encourage, and channel assistance through national organizations that have or can acquire popular legitimacy and linkages to local communities.
7. Provide training and technical assistance to help such organizations facilitate and sustain development activities implemented by other units. Continue to offer assistance even after project and program specific funding is ended. Sponsor regional workshops for those units carrying out similar activities.
8. Improve the capacity of in-country training institutions, research organizations, indigenous private voluntary organizations, and universities to offer institutional and management support. Encourage networking among these units and those charged with carrying out development activities.

Recurrent Costs

9. Assist developing country institutions to consider alternative ways to meet recurring costs. Rather than assuming that developing countries will pick up the costs for valued activities, help recipients explore a variety of ways to cover their costs, and do so early in the assistance process.
10. Rethink Agency policy on recurrent costs. Donors have been reluctant to contribute to recurrent costs because they wisely want to avoid creating dependency. However, recurrent costs associated with institution building activities are different in nature than recurrent costs associated with traditional projects to provide benefits.

Management Systems

11. Develop a revised model of the role of donors. Those providing technical assistance need to think of themselves as catalysts and facilitators rather than as external experts. Facilitators are as interested in energizing and mobilizing people, as in providing answers, and thus they look for ways to encourage commitment among staff as well as pass on technical information.²⁴
12. Continue training and technical assistance in management systems even after discontinuing specific project funds. This can be done either directly by donors or indirectly through other in-country units. A number of USPVOs have followed this strategy -- withdrawing project funding, but continuing to offer technical support through visits or workshops (Huntington, 1987).

Procedures Internal to A.I.D.

13. Review A.I.D. staff policies to reward people for continuing and adapting activities in the pipeline.

B. Continuing Issues Implicit in Sustainability

The specific implications briefly listed above follow from earlier discussion about the conditions that appear to be necessary to promote sustainability. There are signs that the Agency is beginning to address these issues. Several recent workshops have considered definitions of sustainability and a number of proposals and evaluation guidelines include sustainability as a criterion for evaluators to examine. It would be easy to conclude from these efforts that the Agency is moving in this direction and only needs to apply itself to sustainability more consistently. In reality, however, sustainability poses very difficult problems for donors and developing countries alike. It is not at all clear that the Agency can make the necessary changes. Nor is it clear that sustainability is necessarily and always an appropriate goal for A.I.D. to pursue. This concluding section looks at some of the difficulties and tradeoffs that A.I.D. confronts in taking sustainability more seriously and pursuing the implications listed above.

A.I.D. Policy

Dealing with sustainability involves a longer time-frame than A.I.D. normally adopts. For example, A.I.D. funding is often provided for specific, time-bound projects that are not specifically linked to on-going programmatic concerns within developing countries. This encourages a "life-of-project mindset." It is difficult, however, for A.I.D. to move to a longer time-frame. The Agency is under considerable pressure from Congress and developing countries to "move money" and demonstrate the effectiveness of its funds. These pressures make it difficult for A.I.D. to emphasize the long term investments in capacity building and institutional development that are central to sustainability.

There are also organizational constraints that make it difficult to take sustainability seriously. As is evident throughout the preceding pages, managing with long-term prospects in mind infuses a lot of uncertainty and complexity into what is already a very complex process. All organizations tend to avoid such complexity; those in the public eye, with little external support, have all the more reason to emphasize activities where they have some reasonable and predictable chances of success. The normal tendency to pursue "bounded rationality," to accept the limitations of information and knowledge, flies in the face of the demands posed by managing with sustainability in mind.

Assume that A.I.D. does move to emphasize areas where prospects for the future are more certain, where staff can count on support within the developing country, and where it is reasonable to expect valued results of their assistance to be continued. One likely result would be to curtail

activities that appear risky and yet could still be worth doing. Those reviewing how much to emphasize sustainability need to consider when it should be emphasized and whether the Agency also needs to pursue social experiments where the long-term prospects are less certain.

Relations with Developing Countries

Developing countries need to be in a position to exercise responsibility over activities within their borders if they are to continue them into the future. The same pressures on A.I.D. to be accountable for short term results, however, also make it difficult to turn responsibilities over to developing countries, to engage in collaborative planning, or to decentralize responsibilities to local organizations. The problem is that even when the developing countries do exercise responsibility for activities, contractual arrangements often give A.I.D. final authority over decisions. As a result developing country staff may feel that A.I.D. is really in control and that they are merely following donor priorities.

Policy Assistance

A.I.D. has recently been emphasizing the importance of policy reforms to reinforce development efforts. There are cases where policy changes have improved the long-term chances of continuing funded activities. There are other cases, however, in which reforms have had little or no impact. In some cases the incentives that donors offer to alter policy, or the projects they introduce, are so small relative to overall expenditures that they can make only very marginal differences. And sometimes developing countries give lip service to policy reforms but fail to pass implementing actions. It is for this reason that Joan Nelson (1986) observes that donors may have more impact on policy by providing technical assistance to those who make policy than they do by urging particular reforms. For example, she recommends that donors place more emphasis on assisting policy makers with their decision making procedures and analytic capacities, than in promoting specific substantive policies.

Institutional Development

A.I.D. often uses designs as blueprints that stipulate predetermined quantified outputs and schedule activities ahead of time. These can undermine the flexibility that developing country institutions need to be responsive and to develop ongoing processes for sustaining activities. Again there are pressures within A.I.D. that make it difficult for them to encourage such adaptability. A.I.D. is experiencing pressures to reduce its own administrative costs. At the same time many of the capacity building activities and required technical assistance are administratively intensive, and Missions find it difficult to devote sufficient attention to them. For example, many Missions are reluctant to rely on voluntary organizations, because auditing practices require them to devote disproportionate amounts of administrative time to overseeing them.²⁵

Management Systems

In-country organizations need sufficient autonomy so they can develop flexible and adaptable organizations, so they can make mistakes and learn from them. Many A.I.D. evaluation practices review funded activities, and if they do not meet goals or objectives count them as unsuccessful. Another approach to evaluation assumes that if there are negative results it is possible to learn from them. Agency evaluations have become much more collaborative and place more emphasis on what can be learned than they formerly did. At the same time internal pressures for accountability make it easier to affirm and reward short term tangible accomplishments as opposed to longer term learning and institutional development.

These dilemmas are raised in the spirit of encouraging the Agency to confront the dilemmas and problems it will face if policy makers decide to take sustainability more seriously. It cannot simply be a gloss appended to project proposals and policy guidelines. Rather sustainability poses difficult tradeoffs within the Agency. It also requires more disciplined attention to institutional development and management systems for promoting sustainability. Finally there is a need for systematic research specifically tailored to the issues raised in this paper. The lessons summarized in the preceding pages provide some broad and tentative directions, but much more needs to be known about specific strategies and their impact on continuing the valued results of development assistance efforts.

ENDNOTES

1. It should be noted that all of the empirical results presented so far relate to development assistance in the form of projects. From these findings alone it would be inappropriate to generalize that the low levels of sustainability achieved through project assistance would also apply to other forms of project assistance, such as support for on-going programs, policy reform, and privatization.
2. See, for example, the review of the Child Survival program conducted by A.I.D.'s Center for Development Information Evaluation (CDIE) and the comparative evaluation of 6 health programs funded by A.I.D. in Honduras (Bossert and others, 1987).
3. See for example, Honadle and VanSant (1985), Brinkerhoff (1986), and Rondinelli (1985).
4. See Stevens' (1987) discussion of health projects in Egypt and Pakistan. The former tried to sustain the behavioral impact of the project on a specified target population, not the project services themselves. The latter attempted to sustain the means of continuing the health delivery system using inputs at project rates of assistance.
5. The implementation literature is vast and includes Honadle and Klauss (1979); Ingle (1979); Rondinelli (1987); White (1987).
6. Considerable research has been done on the problem of recurrent costs. A recent study (Gray and Martens, 1983) concluded that "perhaps the key accomplishment of the CILSS/Club du Sahel Working Group on Recurrent Costs in the Sahel was to prove to the satisfaction of the donor agencies that supported it, as well as most of the Sahelian officials and consultants who took active part in it, that the region's 'recurrent cost problem' cannot be resolved in isolation from the phenomenon of economic stagnation that has afflicted the Sahelian countries and the macroeconomic policies that are in large part responsible for it, or at the very least have failed to overcome it."
7. Rules regarding local budget practices can make it very difficult to develop alternative ways to meet recurrent costs. For example, local governments in the Philippines are greatly constrained by a long list of rules that determine how they can allocate their resources (Bahl and others, 1981). Similarly in Burkina Faso, the central government requires that local revenue projections include previously uncollected tax revenues thereby resulting in overly optimistic spending plans (Local Revenue Administration Project, 1986: 219-231).

Even while it is wise to rely more upon local governments to meet recurrent costs of development, it is unrealistic and economically inefficient for them to be totally self financing. Some flow of grant resources from the center must continue, but intergovernmental aid should be designed to encourage local resource mobilization (Schroeder, 1987). For example, a study of a grant

system in Ecuador found that the cost-reimbursable portion of the grant program stimulated additional revenues by local governments. The study goes on to suggest how central units could stimulate considerably greater amounts of local resources (Greytak and Mendez, 1986).

8. The ecological impact of development projects has received much needed donor attention of late, witness the expansion of the environment office within the World Bank. USAID has several centrally-funded projects that touch on issues of ecological sustainability. Of particular interest is the new project on Development Strategies for Fragile Lands (DESFIL) that examines the relationship between development activities and sustainability in sensitive ecological zones in Latin America and the Caribbean. DESFIL will be sponsoring a conference in Quito dealing with the topic of sustainability and the environment. Proceedings of that conference and copies of the 25 commissioned papers will be available from the prime contractor, Development Alternatives, Inc., in mid-September 1987. Another important resource on environmental problems and ways in which local communities are coping with them is Timberlake (1985).

9. For example, see the Brundtland Report of the World Commission on Environment and Development (1987). Other relevant studies include Repetto's (1986) description of how government proce policy and agricultural subsidies can encourage appropriate environmental practices and Conway's (1986) agroecosystem analysis that provides specific tools for integrating economic and ecological factors. This type of analysis has been successfully applied in the Philippines (Conway and Sajise, 1985). Conway (1985) also describes the value of interdisciplinary teams to coordinate several ministries in dealing with environmental issues. Cases include the Philippines, the Caribbean, and Tanzania.

10. Huntington (1987: 10). The report cites an earlier paper by Korten (1980) in which he distinguishes between "institution-building" and "institutional development" as a blueprint versus an open-ended process.

11. Seymour and others (1985). See also the broader discussion of the value of partnerships between the private and public sectors in White (1987). The Senegal study is one in a series of evaluations of institutional development and management conducted by A.I.D. in 1985.

12. The Basic Villages Project is one of the cases contained in Uphoff (1986).

13. Given the importance of funding, it is interesting that the Devres (1987) review found little evidence of special plans to ensure future funds. Meanwhile, other studies document that developing countries have a difficult time meeting recurrent costs unless special efforts are made to do so. For example, a study of 29 development projects in the Sahel predicted that only 1 of 12 agricultural projects would yield enough revenue to cover their annual recurrent expenditures (CILSS/Club du Sahel Working Group on Recurrent Costs, 1980). It is worth noting that the CILSS working group acknowledged the difficulty in defining and measuring what constitutes the required level of recurrent costs of a development project. The same study

concluded that 7 of the Sahelian countries would have budgetary shortfalls ranging from 2 to 45 percent and predicted that they would have to reduce spending on recurrent costs of development projects to make up these deficits. Similar studies of recurrent costs were conducted by U.S.A.I.D.'s Bureau of Program and Policy Coordination in 1982. See also the papers by Heller (1979) and Meerman(1983).

14. Bahl and others (1981) have concluded that administrative improvements in accounting and budgeting are necessary in many locally-operated public enterprises that rely on user fees. When the full marginal costs of such services cannot be determined, efficient pricing policies cannot be established and projects are less likely to be sustained.

15. Local Revenue Administration Project (1983: 208). See also Warren and Issachar (1983).

16. See, for example, World Bank (1985: 47). Others who have stressed this factor include Bryant and White (1982), Paul (1982), Smith, Lethem and Thoolen (1982), Honadle and VanSant (1985), and Brinkerhoff (1986).

17. See Warwick (1982) and Bossert and others (1987).

18. It is often not enough to design effective information systems. It is also necessary to explore effective ways to communicate the results. A number of experiments are being conducted in communicating information about results to those who might offer support to an activity in the future. The AID-financed CARDI FSR/D project held an "impact assessment" workshop in order to determine whether information about the results of the research efforts could be used to encourage policy leaders and potential donors to become more interested in encouraging research. Such workshops are becoming an accepted practice in agricultural research: see, for example: Pinstrup-Anderson (1979) and Consultative Group on International Agricultural Research (1985).

19. Examples include Korten and Klauss 1(1983), Honadle and VanSant (1985), and Hage and Finsterbusch (1987).

20. Cases include: The Training for Rural Development Project in Tanzania; the Sahel Regional Financial Management Project; the Indonesian PRDT I and II Projects. For a discussion of these three cases, see Kettering (1985). Schmidt (1984) presents the key elements of the Team Planning Meeting approach based on field experience in Indonesia, Thailand, Pakistan, Jamaica, and the Sahelian countries. A more detailed description is found in Team Planning Coordinating Committee (1984).

For examples of action-training in Thailand, Egypt, Tanzania, Pakistan, Caribbean, see Hart and George (1984), Poley (1985), Silverman, Kettering and Schmidt (1986), and Jones and Clyma (1986). Other research suggests that collaborative or organic approaches to management may be important in some circumstances than others. By this reasoning, designs of organizations need to be compatible with or fit with the setting and the task of an organization. One recent study observes that "organizations doing simple tasks and meeting a

large relatively uniform demand" can have a more hierarchical or centralized structure. Those on the other hand that are responsible for more complex efforts to change social behavior probably need a more organic structure and to pay more attention to participation and consultation and interaction (Hage and Finsterbusch, 1987).

21. Other terms used to describe this combination of structure and flexibility include "top-down, bottom-up" and "structured flexibility". Both names reflect the importance of judicious goal-setting and flexible implementation. A discussion of "top-down, bottom-up" can be found in Korten (1987); the same concept is presented by Honadle and Rosengard (1983). A comprehensive discussion of the evolution of the concept of "structured flexibility" as well as a report on its field-testing can be found in Brinkerhoff and Ingle (1987).

22. This observation comes from Leonard (1986). Other discussions of the role of leadership include: Esmen (1986), Brinkerhoff and Klauss (1985), Paul (1983), Uphoff (1987), and White (1987).

23. An evaluation of ACCION in the Dominican Republic also emphasizes the value of clear and operational goals (Greene and Reichmann, 1987).

24. For a discussion of this "mobilizer/catalyst" model, see Honadle and VanSant (1985) and Brinkerhoff and Ingle (1987).

25. A number of studies document that many current training practices have proven to be very ineffective. These include: Chambers (1983), Devres (1987), Leonard (1977), and Kerrigan and Luke (1987).

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Research and Development

* Derick Brinkerhoff (IDMC) conducted interviews with World Bank staff on institutional analysis methodologies used by the staff. The information collected in the interviews will be used as input for revising the IDMC paper on institutional analysis written for the Bank's Public Sector Management Office. The interviews were part of IDMC's work with Arturo Israel (World Bank).

* Robert Yuan (IDMC/UM Microbiology), program leader of IDMC's new Biotechnology International (BTI) program, travelled to Singapore, Taiwan, England, and Switzerland in preparation for the biotechnology conference to be held in Singapore this September. While away, he met with publishers of a series of books on international biotechnology. Upon Yuan's return, arrangements were made with the trade and development office of the State of Maryland to sponsor a meeting in Baltimore in July to discuss the Singapore Conference and follow-up activities for the State. Yuan also met with UMBC Preident Michael Hooker to discuss the Singapore Conference.

* Tjip Walker, Derick Brinkerhoff, and Marcus Ingle (IDMC) worked with Art Goldsmith (IDMC Associate) on revising the SCOPE paper on institutional sustainability for ANE/TR/ARD. A dissemination draft was circulated to Jim Lowenthal (AID) and members of the AID working group at the end of the month. Pilot applications of the SCOPE model have been initiated in Morocco and Indonesia.

Technical Cooperation

* Ken Smith (IDMC) spent five days at CARDI's Trinidad offices where he installed two management-oriented software packages. The Executive Action Request System (EARS) and WORKPLAN, a customized version of TEAMPLAN, were designed to facilitate the planning and implementation of CARDI's program agenda. An EARS user's guide written by Carmen Halpern (IDMC) and a TEAMPLAM manual drafted by Bonnie King were provided with the software.

* Andrea Jones (IDMC) returned from a five-week action training assignment in India. This trip was part of IDMC's ongoing support of the AID/Government of India irrigation efforts. The major focus of the project is on the use and establishment of action training approaches within irrigation-related institutions.

* Bonnie King (IDMC) demonstrated the AGRICOLA database for Dr. Bakir Oteifa, a representative of Egypt's National Agricultural Research Project (NARP). AGRICOLA is an on-line USDA database maintained on compact disk (CD ROM).

* Andrea Jones (IDMC) and David Levine (IDMC Associate) will act as co-leaders of IDMC's new assistance effort to the renewable natural resources division of AID/S&T/AG. Along with team members Dorsey Burger, Taka Izumi, and Ray Kitchell, they will assist the division in developing and defining an integrated program management system that would consolidate all current AID/S&T/AG/R&R soil and water efforts under a common program and management framework.

Training and Education

* Derick Brinkerhoff (IDMC) designed a three-day training module on monitoring and evaluation for the Atlanta Management Institute's project management course next month. Instruction of the module will be in French. He was assisted in its preparation by Margaret Martens, a volunteer intern from the University of Maryland's School of Public Affairs who is finishing a masters degree program and has had prior experience in Francophone Africa.

* Derick Brinkerhoff (IDMC) will prepare an institutional development training module for the Training and Development office of the World Bank. Brinkerhoff has also been contracted by the World Bank to prepare a paper and conduct a seminar on methodologies for institutional analysis.

Networking and Dissemination

* An article by Derick Brinkerhoff (IDMC) and Art Goldsmith (IDMC Associate) on administrative reform in Haiti has been selected for publication in abstract form in International Political Science Abstracts, a UNESCO-sponsored journal with worldwide distribution to social scientists. The article was published earlier this year in the Institutional Review of Administrative Sciences.

* Marcus Ingle, Derick Brinkerhoff and Randal Cruikshanks (IDMC) presented a report on the "Future of Development Management" to staff of the World Bank.

* Andrea Jones (IDMC) has been accepted for membership in the NTL Institute for Applied Behavioral Sciences. NTO is a professional organization involved in the research, training, and development of approaches to organizational management development.

Administration

* A brochure is now available announcing the Oct. 5-7, 1988 skills workshop being offered by IDMC and CARDI in conjunction with the 8th Annual Farming Systems Research Symposium. Maximizing Sustainability of FSR/E Projects is the subject of the workshop to be held National Agricultural Library in Beltsville, Maryland.

* Randal Cruikshanks (IDMC Visiting Professor) completed his 10-month term with the Center and will return to his faculty position at the California Polytechnical Institute in San Luis Obispo. While at IDMC Cruikshanks lent his expertise in political science and international conflict management to the work of the Center. Cruikshanks' activities involved IDMC's sustainable development project and research with Marcus Ingle (IDMC) on the future of development management. IDMC plans to continue the tradition of hosting visiting professors from other universities.

* Tjip Walker (IDMC) departed for a two-month stay in Cameroon. Walker will conduct a program development assessment of IDMC's potential future role in Cameroon and Francophone Africa along with his ongoing research activities funded by the World Bank.