

Workshop in Political Theory & Policy Analysis

11.25.91

W85-1

WORKSHOP IN POLITICAL THEORY
AND POLICY ANALYSIS
513 NORTH PARK
INDIANA UNIVERSITY
BLOOMINGTON, INDIANA 47405

1/9/85

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AN EVALUATION OF AN EVALUATION PROCESS

A Report

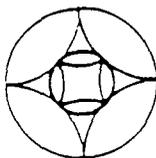
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January 9, 1985

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INTRODUCTION

As part of my assigned work for Project No. AID 20-00-0, I was asked to evaluate the strengths and weaknesses of the pre-evaluation workshop and research design for the 1984-85 impact evaluation of the management enhancement aspects of 18 AID projects.

I have studied intensively all the materials provided to the evaluation team at the pre-evaluation workshop and reviewed the full processes of conducting our study of the management components of the Egerton College AID project in Kenya. My report follows:

Development Management Pre-Evaluation Workshop

Between September 4 through 8, 1984, members of six evaluation teams, who would be conducting impact evaluation studies in Africa, were brought together for a Workshop held in Easton, Maryland, to explain the purposes and design of the impact evaluation studies and to increase the commonality of the final team reports.

The Workshop was divided into three parts. The first part -- one day -- was devoted to a general briefing for the evaluation teams by a distinguished group of scholars and advisers. These external experts presented their analyses of the factors affecting development management performance. The second part -- again, one day -- was devoted to a discussion of internal AID views on development management and on research strategies to be used in the impact studies. The third part -- two days -- was devoted to helping the teams get ready for fieldwork. I participated in the first two parts of the Workshop and discussed the third part with the members of my team.

The underlying idea for the Workshop was meritorious. Gaining comparable information from 6, and eventually 18, evaluation teams sent for one month to different locations is difficult. The Workshop produced some positive results. I seriously doubt, however, that the Workshop enhanced the scientific grounding of the impact evaluations or increased the underlying, as contrasted to the surface, similarity of the final reports.

The positive outcomes of the Workshop related to an enhanced knowledge by team members about the particular project they would study and about the skills of the team participants. If one has had an opportunity to meet and work with the other team members prior to fieldwork and to discuss the project with them, it is much easier to begin effective teamwork in the field. The briefings made by external experts in development administration were on the whole of very high quality and contained valuable information for the teams.

The final reports from this project will hopefully be of considerable value to AID officials in planning future development projects. The usefulness of such reports, however, will be based more on the prior knowledge and experience of the team participants and the insights they gained from their fieldwork than from the advice given Workshop participants, especially during the second part of the Workshop.

This somewhat negative evaluation of the analytical merit of the Workshop is based on the following considerations:

- (1) The lack of congruence between the views presented by the external "experts" on development management during the first part of the Workshop and the approach to development management advocated during the second part of the Workshop.

- (2) The absence of an explicit theoretical framework underlying the research design for the impact evaluation studies and thus for the second and third parts of the Workshop.
- (3) The use of a research design which is not tailored to answer the basic questions of the impact evaluation.
- (4) The substitution of a checklist of abstract questions for the presentation of key variables and how they are thought to be related.
- (5) The difficulty that our own team had in using the assigned outline to draft a meaningful report.
- (6) The fact that our own findings ran counter to those expected by the organizers of the Workshop.
 - (a) No management enhancement component was involved either formally or informally in the Egerton College project.
 - (b) The internal management systems used by Egerton College varied dramatically from the implicit model of "good management" presumed by the organizers of the Workshop to be an essential component of successful projects.
 - (c) The Egerton College project was a major success as judged by many different observers using several different criteria.

Therefore, our study produced a counterexample: a successful project which was managed without the management systems considered by the organizers of the Workshop to be essential for success.

In order to discuss these considerations, I will organize this paper into three major sections. The first major section will focus on the Workshop and will be divided into four subsections:

- (1) the views in the external experts' presentations, (2) the views in the AID presentations, (3) the lack of congruence between the presentations made in the first and the second parts of the Workshop, and (4) the problems inherent in the research design of the studies and the checklist approach to the identification of key variables.

The second major section of this report will then be devoted to an examination of our team's findings related to Egerton College and how they represent a counterexample of a success without the management systems presumed by the organizers of the impact evaluation to be essential for success.

The last section of this report will shift focus to a different approach to the study of institutions in LDCs. The management enhancement studies are presumed to be related to AID's interest in institutional development in the developing world. Having presented a critique of this approach, I will briefly outline how an analyst using an alternative approach to the study of institutions and their consequences would begin to approach a study of this type.

The Workshop

(1) The Views in the External Experts' Presentations

The first full day of the Workshop was devoted to a series of papers presented by external experts based on their analyses of the factors affecting successful management of donor projects in African countries.

Professor Dennis A. Rondinelli started the session with a general review of "The Evolution of Development Management Theory and Practice in AID: A Context for Evaluation." Rondinelli stresses the consensus within donor agencies, as well as within host countries, that serious problems exist in the "planning, implementing, managing and institutionalizing of development activities" (p. 1).

Rondinelli reviews the changing intellectual underpinnings for various programs sponsored by AID aimed at institutional and management development. During the early 1950s, "AID simply transferred managerial techniques and organizational structures that seemed to be successful in the United States to developing countries" (p. 3). AID funded the establishment of many institutes of public administration throughout the Third World to teach traditional public administration theories to the future public officials of these countries.

In the early 1960s, AID promoted "modernization and reform" of administrative structures. In the early 1970s, theories derived from management science — PPBS and project management systems approaches -- were "in" and used internally to AID and recommended to host countries. A switch in focus came again in 1973 with the stress on the needs of the poor through "local capacity building." Recently, the work of Kortin on learning processes has gained some currency in some AID bureaus.

Rondinelli concludes that the theory of development management has shifted from an attempt "to create and install centralized, control-oriented, comprehensive management systems toward more flexible, adaptive, innovative, responsive and collaborative methods of administration. . ." (p. 33). Analysts have acknowledged that management systems that were evolved in regard to capital infrastructure projects are not effective nor efficient when applied to development projects intended to enhance social and human resources. "Social development requires a more strategic, adaptive, experimental, learning-based, and responsive people-centered approach to administration" (p. 34).

Rondinelli then contrasts the intellectual developments external to AID with the lack of intellectual exchange at AID.

However, AID continues to use in its own management procedures a control-oriented process that attempts to anticipate and plan for all aspects of a project prior to its approval and implementation. It continues to rely on methods and procedures of project design, selection and implementation that assume a high degree of knowledge about what needs to be done and of certainty in a world in which 'the correct' solutions are not always clear, and in which the only certainty is a high degree of uncertainty. It makes use of methods developed primarily for capital investment projects, even though the largest proportion of its investment portfolio is in agriculture, population, education and human development projects. It still relies heavily on technology transfer to many social development problems that are not amenable to technological solutions.

Some of the documents presented to the Workshop certainly verify Rondinelli's conclusion that much of the thinking at AID about management is still dominated by a top-down, centrist view of management and the transfer of technology congruent with this type of management.

A second paper was presented by David Leonard and entitled "The Political Realities of African Management." Leonard first examines the "Africa Bureau Development Management Assistance Strategy Paper" of March 20, 1984, and stresses that four very different processes are included in this paper under the term "development management." These include public policy-making, organizational leadership, internal administration, and what Leonard calls bureaucratic hygiene. The activities involved in these four types of behavior differ substantially, Leonard argues, and excellence in one of them may be obtained "at the expense of one of the others" (p. 2).

Leonard argues that in terms of the success of projects or programs, "the hierarchy of importance begins with public policy, is

followed by leadership and general internal administration, and ends with bureaucratic hygiene" (p. 4). However, Leonard argues that when many AID personnel describe the components of good project management, the rank order is reversed. "This is partly because failures at the policy and leadership levels are more diffuse and harder to measure, but also because shortcoming in bureaucratic hygiene can be more damaging to AID careers than project failures are" (p. 4).

Leonard also has some interesting insights into the use of technical assistance. He first points out that technical assistance is not a modern phenomenon. Importing technical assistance was a practice which was used extensively in Europe during the late eighteenth century. Prussia imported French fiscal experts to work in its government. French engineers were also extensively involved in Russian governmental projects.

The difference between earlier uses on technical assistance and the current use patterns in Africa is not the importation of foreigners, "it is their presence in privileged enclaves for two year contracts" (p. 21).

When the French went to Prussia, they went to settle. Hence they were fully subject to the incentives provided by the leaders that recruited them and they became integrated into the decision-making systems that they had been imported to improve. They also were there long enough to learn from their experiences and to adapt their knowledge to the new environment. It is the impermanence, rather than the number, of technical assistance personnel that is one of the major inhibitions to African development and deserves concerted attention by donors and host governments alike (pp. 21-22; my emphasis).

The last section of Leonard's paper is devoted to a discussion of what Leonard calls "bureaucratic hygiene," but what might better be called "management tools." He includes accounting, auditing,

procurement, contract compliance, and personnel system management. Leonard argues that these activities are "only indirectly related to project or program performance" (p. 29). These tools are, however, extremely important to donor agencies.

Norman T. Uphoff and Milton J. Esman also presented a paper entitled "Disaggregating Development Management for African Agricultural and Rural Development." The major point of their paper is that any single administrative tool or organizational arrangement cannot be uniformly recommended for use in African development projects. Given the variety of environmental conditions, the diversity of technologies used, the differences in various levels at which projects are aimed, no standard administrative organization or practice will be effective in all these diverse settings. The type of organizational structure and the appropriate management tools must be worked out in light of the level at which the management activities will occur, the channels being used by management, the types of production technologies involved, the inputs being used, and the particular functions assigned to a management unit.

They point out that the kind of development management required for agriculture is not the same as what is needed in a health care project or for a rural public works project.

In Agriculture, the 'client' is usually a household or individual producer, not a patient as in health or a user as with a rural road. The institutions of government, self-help and private business are effective in promoting agricultural development to the extent they can prompt thousands, even millions of micro-enterprises faced with resource constraints, risk factors, limited knowledge, etc. to make entrepreneurial decisions which result in increased output or stability of production. . . .

Consider how this differs from health care. When it comes to giving immunizations or suturing wounds, patients need

enough trust in the professional or paraprofessional serving them to come forward for treatment. But most treatments once given are more likely to work on their own than agricultural advice and inputs, which need to be used and tended by the farmer over a long period. This is not to underestimate the importance of patients' responsibility for their own health care, but the body for all its marvelous complexity operates more autonomously than a small farm enterprise (p. 7).

In this discussion, I have examined only some of the key points made in three of the excellent papers presented during the first part of the Workshop. These authors agreed that severe problems existed in the design and execution of many agricultural development projects in Africa. They also agreed that many of the problems could be broadly considered problems of management. But, they stressed that the concept of management used in some AID documents was extremely broad and covered a wide variety of activities performed at all levels within host country institutions and projects. Other AID documents used an outdated, narrow, top-down view of management. They agreed that social science theories diverged substantially from some of the frameworks still in vogue at AID.

Given the marked contrast between the conclusions reached by the external experts and the implicit management theory used by the organizers of the Workshop, it is important to find a method for arraying the conclusions of the experts in a more theoretically rigorous manner than simply quoting from the various papers. Thus, I have abstracted from the detail of these papers to present some general propositions that are derived from at least one, and frequently more than one, of the papers presented in the first part of the Workshop. These propositions are arrayed in Table 1.

Table 1

Propositions About Development Management Derived from
External Experts' Papers

- E1 Development projects involve many different production technologies (Uphoff and Esman, 1984: 7-8).
- E2 Appropriate management techniques vary dramatically dependent upon the production techniques to which they are related as well as to the cultural setting in which they are applied (Uphoff and Esman, 1984: 7).
- E3 Centrist, top-down management strategies are not effective outside of projects heavily involving the construction or operation of physical plants (Rondinelli, 1984: 33).
- E4 Over-reliance on formal accounting systems can lead to highly rigid bureaucracies incapacitated by pathological, control-oriented systems (Rondinelli, 1984: 2).

Therefore,

- E5 No single management technology exists (Uphoff and Esman, 1984: 7; Rondinelli, 1984: 34).
- E6 No single evaluation can be given to any management system (Uphoff and Esman, 1984: 22).
- E7 The enhancement of LDC management capabilities is not primarily a problem of technology transfer (Rondinelli, 1984: 34; Leonard, 1984: 7, 35).
- E8 Instead of reliance on technology transfer from western, modernized countries to LDCs, we should instead look at successful indigenous innovations for ways of enhancing management capabilities (Leonard, 1984: 28-29).

The success of development projects depends heavily on:

- E9 Macroeconomic policies of the host government (Leonard, 1984: 2);
- E10 Knowledge by managers of the physical and/or socioeconomic systems which the project is attempting to affect (Boyle, 1984: 1, 21-22; Honadle, 1982: 634-638);
- E11 A match between the authority that managers at various levels can take and the nature of the systems to be affected and the resources available (Uphoff and Esman, 1984: 19);

- E12 The match of timing and information requirements of administrative procedures to the physical and/or socioeconomic systems affected (Uphoff and Esman, 1984: 8);
- E13 Availability of a production technology related to the problems the projects is attempting to solve (Boyle, 1984: 1);
- E14 The incentives facing personnel working at various levels of a project or enterprise (Honadle, 1982: 638; Leonard, 1984: 21-22; Uphoff and Esman, 1984: 21);
- E15 The incentives facing the clients of the project (Boyle, 1984: 21-22; Uphoff and Esman, 1984: 7);
- E16 The commitment of managers to the objectives of the project (Leonard, 1984: 17-18; Boyle, 1984: 4-5, 18-20);
- E17 The commitment of the host government to the importance of the project (Boyle, 1984: 10);
- E18 The capacity of project personnel to work effectively together (Boyle, 1984: 5-7);
- E19 The capacity of project personnel to work effectively with the population of individuals to be "benefitted" (Boyle, 1984: 12);
- E20 Stability of legal arrangements (Rondinelli, 1984: 2);
- E21 Stability of personnel (Leonard, 1984: 22);
- E22 Knowledge of managers of local circumstances and culture (Boyle, 1984: 1; Leonard, 1984: 22);
- E23 Leadership capabilities of managers (Leonard, 1984: 3).

The success of development projects does NOT depend on:

- E24 Accounting and financial management systems (Leonard, 1984: 34; Honadle, 1982: 639; Uphoff and Esman, 1);
- E25 Formal definitions of roles and responsibilities (Boyle, 1984: 13; Leonard, 1984: 34);
- E26 Well-defined personnel rules (Uphoff and Esman, 1984: 8);

Therefore:

- E27 Given the vast number of variables needed to characterize the physical and/or socioeconomic systems to be affected and the internal processes of managements, no necessary and sufficient conditions can be stated for the factors which must be met for a project to succeed (Uphoff and Esman, 1984: 22).

* * * * *

(2) The Views in the AID Presentations

In addition to the papers presented by the external experts, four papers, presented as basic planning documents, were written by AID staff or consultants working closely with the AID. Two of the papers originated in the Africa Bureau. One of these, "Development Management Amid Economic Crisis," was written for the meeting by Jerry Wolgin. Wolgin's paper was a general analysis of the problems of development in Africa and was quite consistent with the views presented by the external expert. Wolgin focused on the importance of macroeconomic policies. Even the most effectively managed agricultural service projects, Wolgin argued, might come to naught in an economic environment sending farmers grossly distorted price signals.

The second paper written by staff members of the Africa Bureau was entitled, "Africa Bureau Development Management Assistance Strategy Paper." This strategy paper contains a definition of development management to which many references were made during the Workshop. According to this definition, development management is a "process by which resources available to developing countries are organized and used to achieve specific development objectives" (p. 1). The strategy paper then cites the way S&T/RD has characterized the management process:

Management supports the transfer of technology . . . to LDCs so as to maximize the technology's impact; and management is itself a technology to be transferred and adapted to LDC

needs. Management assistance helps LDCs to make effective and efficient use of scarce resources, to structure development tasks and to find ways to accomplish them.¹

The breadth of this definition is illustrated within the paper in the section identifying "Areas of Primary Concern." The areas of primary concern are stated as: (1) policy reform, (2) alternative service and input delivery mechanisms, (3) training, (4) financial management, and (5) resource allocation. Given the breadth and scope of these primary concerns, it is hard to determine what is not defined to be included within the concept of development management.

A host of variables — all the way from macroeconomic policies down to internal accounting practices — are thus included in what is called development management. Many useful suggestions for ways of enhancing development processes are made in this strategy paper, and many of these are quite consistent with the advice of the external advisers. But since the paper is intended "to provide guidance to Africa Bureau personnel, field missions, and regional offices in planning for and implementing improved development management for Africa" (p. 1), the scattershot nature of the recommendations hitting at so many different levels of activity and so many different types of processes, reduces its effectiveness in guiding members of the evaluation teams. Development management can be anything, everything, and thus, not really anything at all.

Readers are told, for example, that attention "to financial management and accountability, revenue and tax systems as well as

¹ "Essential Elements of Development Administration: Considerations for Program Design and Implementation," AID, Bureau for Science and Technology, Office of Rural and Institutional Development, 1983.

structural administrative performance issues is crucial" (p. 7). Given that financial management is one of the five areas of primary concern, is financial management as crucial as policy reform? as crucial as consideration of alternative institutional arrangements for service delivery? as crucial as training in management techniques? or as crucial in obtaining more resources for the enhancement of development management? How does one develop a strategy, either as a planner or as a research team, based on all of the diverse recommendations contained in this "strategy" paper?

In addition to the two papers prepared by staff of the Africa Bureau, two other, more focused, papers were presented to the Workshop by Janet Tuthill of Management Systems International and by Merlyn Kettering and Frank Lusby, Development Project Management Center, USDA.

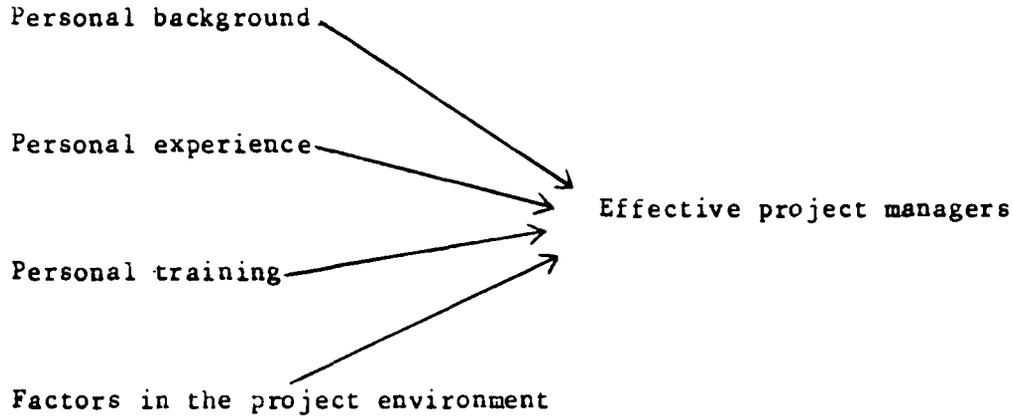
Janet Tuthill's paper was entitled "Practical Guidelines for Assessing and Explaining Development Management Performance." Her first stated objective for the paper and Workshop session were to provide the field evaluation teams with "operational guidelines and tools to use in evaluating management performance in each project" (p. 1). This paper was written as a "how to do it" paper specifically for the evaluation teams.

Tuthill relies on the definition of development management presented in the Africa Bureau strategy paper discussed above. She then states three basic assumptions about "the nature of the management phenomena to be examined":

1. Some project-related managers are effective in their performance.
2. Their background, experience, and training contributed to their effectiveness.

3. Certain factors in the project environment facilitated management effectiveness (p. 3).

A flow chart representing these basic assumptions would look like:



No equivalent assumptions are made concerning: (1) the incentives facing managers and staff within a project or the farmers being served by a project, (2) the nature of the physical or socioeconomic systems to be affected, and (3) how teams of managers are internally organized, etc. Many other assertions are made about the factors affecting success in development projects. Instead of discussing these propositions in the text, I have listed them in Table 3. While some of these propositions are consistent with the propositions derived from the work of the external experts, many either directly or through implication contradict the propositions contained in Table 1.

Having briefly presented a top-down, manager-centered view of the management process, Tuthill then presents a series of "practical" guidelines for helping the evaluation teams do their work. The first set of guidelines is reproduced as Table 2. The questions in Table 2

Table 2

Practical Guidelines for Assessing and Explaining
Development Management Performance

(Project Strategy Identification and
Description of Management Dimension)

The following sets of questions are designed for use in determining what kind of strategy was in use in the project to improve management capability.

1. Is there any output in the project design logical framework specifically aimed at improving management?
2. Are there any other conscious indications of a management improvement plan in the project design?
3. Are there activities outside the project being carried out by USAID or other donors which aims at management improvement?
4. If the project has a training component is management training included? What kind? Long-term, short-term, in-country, third-country, study-tour, other? What content?
5. What kind of technical assistance was planned? What kind was delivered? Long-term, short-term, combination?
6. In what organization/institution was the technical assistance placed? Project? Government? Local institution?

From: Janet Tuthill (1984) "Practical Guidelines for Assessing and Explaining Development Management Performance."

were "designed for use in determining what kind of strategy was in use in the project to improve management capability" (p. 7). At the Workshop, the members of our evaluation team responded to this set of questions in a team meeting based on our reading of the materials given us on Egerton College. Our answers were all negative. We could find no evidence in the written materials of any "strategy in use in the project to improve management capability." Our fieldwork did not turn up evidence contrary to our initial presumption that no management enhancement strategy was in use at Egerton College. It was a continuing perplexion for our team to have been sent to evaluate the management enhancement aspect of a project in which there were no management enhancement strategies.

In addition to the set of questions reproduced as Table 2, the remainder of the Tuthill paper (some 20 pages) is devoted to a wide array of illustrative questions that the author hoped would be of use to project teams. In these 20 pages of questions, no effort is made to obtain information about:

1. The nature of the physical and/or socioeconomic processes involved in the project.
2. How certain or uncertain the setting in which the project is located is in regard to:
 - a. supply factors such as labor supply, the extent to which the project is working with a known technology, and the availability of financing, and
 - b. demand factors such as excess capacity or excess demand, the knowledge potential users have for the goods or services produced, etc.
3. Whether goals can be clearly and unambiguously stated or are of a much more fluid and ambiguous nature.
4. The types of incentives facing various actors -- including potential users and employees lower in the system.

The Kettering and Lusby paper was also written as a "how to do it" paper for the Workshop. The authors indicated that their paper was written "to orient non-financial management experts to the evaluation of financial management and enhancement of financial management capabilities on AID-financed development projects" (p. 1). While several other authors seem to equate various aspects of development management with institution building, Kettering and Lusby indicate that it is "difficult to view financial management of development funds provided by donors for projects from a purely 'institution-building' point of view."

"From an obscure and routine position in development management," they point out, "financial management has recently become highlighted as key to the successful discharge of managerial responsibilities on development projects" (p. 1). The purpose of financial management is viewed as ensuring that "plans are followed, that organization (project) objectives are pursued to reap intended benefits" (p. 2).

Financial management involves — (i) interface between organizations to obtain or distribute funds, and monitor funding agreements, and (ii) recording, monitoring and controlling financial operations (or stated in another way, the financial consequences of past, current and future operations) (p. 2).

Kettering and Lusby argue that "good management is built on managerial accounting; managerial accounting, in turn, is built on financial accounting" (p. 3).

The last portion of the paper is devoted to the presentation of an "Analytic Framework" and a series of questions to be asked about the elements in the analytic framework. Discussion of this part of the Kettering and Lusby paper will be deferred until a later section of this report.

(3) The Lack of Congruence Between the Presentations Made in the First and Second Parts of the Workshop

The Types of Incongruence

In order to compare the views in the Tuthill and Kettering and Lusby papers with those of the external experts, a set of propositions derived from these papers is presented in Table 3.2. A comparison of Table 1 and Table 3 helps highlight the lack of congruence between the work of the external experts and these two internal "how to do the evaluation" papers.

Direct Contradiction

The first type of incongruence is the direct contradiction between five of the propositions in Table 3 with specific propositions in Table 1. The external experts had stressed the wide variety of development projects funded by AID and how the appropriate management systems for projects differed depending on the type of project. Both the Tuthill and the Kettering and Lusby papers imply that a single management technique could be identified to enhance project success, no matter what the type of project. The checklist approach used in these papers presumed that good management was reflected by the presence of particular types of management tools and bad management was signified by the absence of these tools. Given the presumption that the management process is dependant primarily on a single

² I did not derive propositions from the Africa Bureau Strategy paper. Given its breadth, it would be possible to interpret sentences contained within it to support many of the propositions in both Table 1 and Table 3.

Table 3

Propositions About Development Management Derived from
Internal AID Position Papers

- I1 Appropriate management techniques are similar no matter what production process is involved. (Implied because of absence of reference to the need to tailor management processes to production process.) [Contradicts E2]
- I2 Known technologies exist for managerial and financial accounting (Kettering and Lusby, pp. 25-32).
- I3 Management is a technology (Tuthill, p. 2, citing ST/RD paper). [Contradicts E5]
- I4 Good management is built on managerial accounting (Kettering and Lusby, p. 3).
- I5 Managerial accounting is built on financial accounting (Kettering and Lusby, p. 3).

Therefore,

- I6 Good management is built on financial accounting.
- I7 The enhancement of LDC management capabilities is a problem of technology transfer (Tuthill, p. 2, citing St/RD paper). [Contradicts E7]

The success of development projects depends heavily on:

- I8 Accounting and financial management systems (Kettering and Lusby, p. 3); [Contradicts E24]
- I9 Consensus on objectives and strategies (Tuthill, p. 4);
- I10 Realistic project plans and agreement on their implementation (Tuthill, p. 4);
- I11 Formal definitions of roles and responsibilities (Tuthill, p. 4); [Contradicts E25]
- I12 Appropriate mechanisms to direct, coordinate, follow-up on tasks, and assure delivery of benefits (Tuthill, p. 4);
- I13 Responsive systems for monitoring progress and evaluating results (Tuthill, p. 4);
- I14 The background, experience, and training of managers (Tuthill, p. 4); [Consistent with E23]

- I15 Pressure for and commitment to change from both the internal and external environments (Tuthill, p. 4);³
- I16 Multi-level involvement or participation in the purposeful action and the improvement effort (Tuthill, p. 4);
- I17 A degree of realistic self-reliance on the part of operational groups (Tuthill, p. 5);
- I18 Openness to innovation, new ideas, and methods, a willingness to examine data, information, and new opportunities with open minds and a receptivity to learning (Tuthill, p. 5);
- I19 A minimum level of stability, continuity, and security both in the immediate external environment and in the organizational context (Tuthill, p. 5).

technology, the additional presumption that enhancing the management capabilities of LDC projects involves the transfer of that technology is easy to understand. But it is just this view of management that is being criticized by the external experts.

Implicit Contradiction

The second type of incongruence is an implicit contradiction between the type of factors identified in the eighth through the thirteenth proposition on the internal AID list with the third proposition (as well as the implication of many of the other propositions) on the external experts' list. The third proposition in the external experts' list is that "Centrist, top-down management strategies are not effective outside of projects heavily involving the construction or operation of physical plants." Further, most of the

³ This and the next four statements are reproduced here exactly in the language of the original. I am not sure what is meant by them and thus could not translate them into statements using similar variables to those in Table 1.

other propositions in Table 1 are not congruent with a centrist, top-down management strategy. The internal papers argued that success of development projects depended on: consensus on objectives and strategies; realistic project plans and agreement on their implementation; formal definitions of roles and responsibilities; mechanisms to direct, coordinate, and follow up on tasks; use of financial systems; and systems for monitoring progress and evaluating results. Put together, these reflect a centrist, top-down management strategy.

Lack of Consideration of Key Variables

The third type of incongruence between the work of the external experts and the two internal "how to do it" papers, is the lack of consideration of key variables in the internal papers stressed by the external experts to be important. Most of the external experts stressed that no single administrative organization or tool could be uniformly applied to development projects. Management structures and techniques affected performance contingent at least upon the types of production technologies involved and the incentives facing managers. The external experts stressed the wide variety of perverse incentives that project managers, project staff members, AID mission personnel, HCI agency personnel, farmers, and other actors frequently face which leads them to behave in ways that are counterproductive to the broad goals underlying many AID projects. Given the stress placed on the importance of different types of physical and socioeconomic systems and of incentives (positive and negative) by the external experts for the success of development projects, the absence of any serious

attention to the type of production systems involved and the incentives in the arguments and checklists presented in the two internal papers is puzzling.

The Lack of a Firm Theoretical Formulation for the Workshop and Research Project

A Workshop intended to prepare a set of research teams to undertake a series of studies in a comparable manner should be based on some consistent, intellectual formulation. Or, if there are competing theories to be tested by a set of research teams, the difference between intellectual approaches should be clarified. The work of the research teams could then provide evidence consistent or inconsistent with one or another of the theoretical approaches. In this Workshop, diverse approaches were presented as if they were all relatively consistent with one another. The introduction to the first day's work stressed that the papers of the external experts provided essential background for the work presented on the second day. The contradictions between presentations were downplayed and blurred over.

Given the mass of written material handed to the participants at the Workshop, and the lack of time provided for reading of that material, the gap between the various approaches made in the oral presentations was less noticeable than when one gives the written material a serious review as I have during the past several weeks. The lack of congruence was evidenced at the Workshop by the frequent questions placed by team members to the Workshop organizers about what actually was meant by "development management" and "management enhancement."

I don't know how other teams dealt with this incongruence. Our team dealt with it by paying more attention to the internal AID documents than to the papers written by external experts. The internal documents were, after all, prepared as "how to do it" papers for the evaluation teams. Our team used the Kettering and Lusby checklists rather extensively in conducting research on the types of financial management tools in use at Egerton College. I do not personally remember a reference to the external experts' papers in the field. Given the massive amount of project information that team members wanted to absorb prior to fieldwork, it is possible that many team members did not have time to read the external experts' reports prior to their fieldwork.

Given all the effort being made to enhance the comparability of the field research and final reports, the general outline sent to the teams certainly provided little help in how to sort out the incongruencies in what they had been given at the Workshop. The titles of the annexes were so general that anything could be covered in them. Yet, a team had to try to "psych out" what the organizers of the impact evaluation wanted in each section for later comparability.

It was somewhat easy to psych out what was wanted in the Financial Resources section. One could take the Kettering and Lusby checklist and ascertain which types of managerial and financial systems were in place and used by the project and/or host government. That is what our team did, and we found that very few financial systems of the type recommended by Kettering and Lusby to enhance management were used at Egerton College.

The rest of the report was left wide open for each team to define for itself. What was to be covered in the structure annex and in the process annex were left unstated. Given the vastness of the academic debate over how to characterize "structure," simply naming annexes structure and process (while placing resources -- about which structure and process are related -- into a separate annex) does not help a team arrive at comparability. Incentives were presented as a resource along with commodities, technology, money, and people -- a clustering of variables which seems very strange to an institutional analyst.

It may be that the organizers of the impact evaluations did not hope for comparability across even the six reports from Africa. But then, why have the Workshop?

(4) Inherent Problems in the Research Design for the Impact Evaluations

The underlying intellectual tension resulting from the difference in perspectives presented at the Workshop would have been resolved if an explicit theory of how management processes affected project performance was used in designing the impact evaluations. An explicit theory would have identified the set of variables thought to affect performance and the presumed relationships among those variables. Propositions that could be examined empirically would then have been stated and a specific research design developed for the purpose of examining those propositions. A participant might then agree or disagree with that theoretical orientation, but it would be clear what propositions needed to be examined in the fieldwork and how the 18 studies would cumulatively add to knowledge about development management.

Alternatively, one could have designed the 18 studies to provide evidence about competing theoretical orientations to development management. By identifying several competing theories and their related propositions, one could further identify where propositions are similar and where they are contradictory -- as I have done in Tables 1 and 3. The evaluation teams could have been asked to obtain evidence about these competing hypotheses in their research.

Neither approach was taken. Instead, the deep theoretical issues and differences were glossed over. The papers presented the first day were characterized as being simply more general and less focused than the "how to do it" papers of the second day. That there was a genuine difference in the approaches being presented was never articulated at the Workshop.

In fact, even the central question to be addressed by the evaluation teams was never clearly articulated. The "organizing questions" for the Workshop, for fieldwork, and for the field workshops and the final conference, were presented on a sheet contained in the packet and on a flip chart which was referred to several times during the Workshop. These are reproduced as Table 4.

The Pre-Evaluation Workshop is described as exploring a wide variety of factors that might contribute to the success of agricultural service delivery projects and to research methodologies for conducting fieldwork about these factors. These topics were all discussed during the Workshop. But, as I have indicated above, the propositions linking these variables and the relative stress placed on some versus others differed markedly from presentation to presentation.

The two questions identified for the fieldwork phase of the project are markedly different from the questions posed for the Workshop. The fieldwork questions focus on what AID has done to improve host government management effectiveness and on the results of AID assistance. As the central organizing questions underlying a study minimally involving three person-years of effort (18 teams x 4 persons x one month = 72 months), these provide little clarity for the teams. (Given the emphasis in the internal papers to clearly stated goals and objectives as the basis for successful management, the lack of clarity for the goals of the fieldwork is particularly surprising.)

Table 4

Organizing Questions
Management Development Pre-Evaluation Workshop

A. Pre-Evaluation Workshop

1. WHAT CONTRIBUTES TO EFFECTIVE HOST GOVERNMENT MANAGEMENT OF AGRICULTURAL SERVICE DELIVERY PROJECTS.

- Contextual factors: Socioculture, political, economic
- Level(s) of decision making
- Resource input management
- Administrative processes
- Organization, structure
- Human resource and behavioral changes
 - Management/leadership styles
 - Incentives
 - Accountability
- Other(s)

2. HOW IS MANAGEMENT EFFECTIVENESS ASSESSED?

- Evaluation methods
- Information

B. Fieldwork:

3. WHAT HAS AID DONE TO IMPROVE HOST GOVERNMENT MANAGEMENT EFFECTIVENESS?

4. WHAT HAS BEEN THE RESULTS OF AID ASSISTANCE?

C. Field Workshops and Conferences

5. WHAT LESSONS HAVE BEEN LEARNED TO GUIDE FUTURE ACTIVITIES?

Several times participants at the Workshop tried to obtain clarification of the central questions of the project. Here are some of the questions and answers that I wrote down at the Workshop:

From the first day:

Question: What are we evaluating — the impact of an institution on the farmer? Or, the impact of AID on an institution?

Answer: Neither. Teams should be looking at the management impact or management process.

Question: What is meant by institutional or organization issues?

Answer: Look at the process. Look at how a project might have been managed better, or how could the project have better built up local skills.

Question: How do we learn from the examination of a project? Are you trying to help the manager cope within the boundaries of a project or are you trying to change the boundaries of future projects?

Answer: We will use the series of cases to help generalize back to theory.

From the second day:

Question: What types of results are you interested in our examining? The results on the institution? Or, the results of the project on the farmer?

Answer: Do not evaluate the success of the project. Rather, ask how was HCI management enhanced by the project.

Question: How do you define project management?

Answer: Look at it as "management writ large." Examine how the development process is being managed and how this project is related to the general process.

The Kettering and Lusby paper come as close as anything at the Workshop to presenting a theoretical framework for at least a part of

the impact evaluation. The fourth section of their paper is entitled "An Analytic Framework for the Evaluation of Financial Management Improvement on Development Projects." Here they state:

This paper has provided the background for use of an 'analytical framework' to evaluate project/HCI financial management performance and capacity. Such a framework is presented next. It consists of 'yes-no'/short-answer questions which reflect the financial management of projects. The questions are broken down into sections representing major financial management variable or indicators and include: The structure and systems of the project/HCI; the institutional arrangements and personnel of the HCI and AID Mission, and project performance and institutionalization.

The questions in the framework are designed to expose financial management strength and weaknesses as well as their causes. They will allow evaluators to determine what factors have contributed to success or improvement and which have contributed to failures. In general, the framework will provide information which will contribute to improved financial management insights. The evaluators will then be able to apply those insights towards improved financial management in future projects (p. 23).

This "analytical framework" is reproduced as Appendix 1.

In reading through the questions in Appendix 1, it is a puzzle how these questions are "designed to expose financial management strength and weaknesses as well as their causes." Is it the case that all "yes" answers represent strengths? Does having a petty cash fund, for example, represent a strength? Or, is it only a strength if there was "a strong box for the cash"?

Not only is it difficult to determine how the "questions in the framework are designed to expose financial management strength and weaknesses," it is almost impossible to know how these questions will elucidate "causes." Since all of the projects to be evaluated were supposed to be successes, one wonders how answers to these questions will help "allow evaluators to determine what factors have contributed

to success or improvement and which have contributed to failures." Since no questions in the framework relate to project performance, the framework provides no guidance in relating financial management to project performance. Detailed questions are included regarding how money is managed, but no questions are included regarding the results obtained with AID funds.

The choice of 18 "successful" projects is itself a source of difficulty. If one is interested in understanding which factors are particularly important for success, a research design must contain some failures so that one can see whether there is an association between input factors and success. All of the evaluation teams might state that X variable is important for the success of their projects. That still does not tell us about the relationship of X to success. If X is present in many failures as well as successes, it is not among the variables that help us sort out between the causes of success and failure.

Comparative, in-depth case studies can be useful in evaluating past experience. To gain real insight from a series of 18 case studies, however, it is essential to pick the cases carefully from a theoretically generated research design and to specify clearly what variables are to be included in the studies and how these are thought to be related.

Is the Egerton College Case a Counterexample?

Our Findings

The findings from our study of Egerton College in regard to financial management systems are clear cut. Egerton College used no

more than a minimal, cash-flow, financial record-keeping system prior to the AID project. AID funds were kept in separate accounts and were adequately accounted for, but none of the other recommended systems were in place. No change was made in the record-keeping systems of the College as the result of the AID project.

Stringent quality and financial control had been exercised over the construction of many buildings and over an extensive training program in the U.S. More had been obtained than originally planned on several fronts. The effectiveness of this control process was not due, however, to the presence of fully articulated financial or MIS systems. The central budgeting process for the College was also not very sophisticated by U.S. standards.

The success of the Egerton College project could not be attributed to the presence or enhancement of a financial management system similar to the type presumed to be necessary in the internal papers. None of the managers at Egerton had received formal training in management. Only one person out of the more than 60 persons at Egerton sent to the U.S. for training received some training in management.

The puzzle we had to address then was why was this project a success. In this report, I can only sketch our argument. Interested readers are referred to our team's report. We attributed the success to three broad factors: (1) factors related to the management of the project, (2) factors related to the type of project involved at Egerton, and (3) factors associated with the environment in which the Egerton College expansion took place.

Factors Related to the Management of the Project:

1. The commitment by top management at Egerton College not to allow the project to become "an active donor/passive recipient" project.

This in turn led to:

- a. The retention of decision-making authority for Egerton College primarily in the hands of local faculty and administrators.
 - All Department Heads were permanent, Egerton College faculty members.
 - Technical Assistance personnel were told that they worked FOR Egerton College and not for SECID.
 - No disruption occurred when the Technical Assistance Personnel returned to the U.S.
- b. The active monitoring of project activities by permanent, Egerton College personnel.
 - The Principal has been an active monitor during the entire project for all phases of the AID project.
 - The Planning Office has had an important monitoring role for the building aspects during the past couple of years.
 - In regard to Training, the Registrar, Department Heads, and Members of the Board have all exercised close monitoring of the selection of trainees, the choice of academic programs, the choice of particular courses, and the progress of each trainee sent to the U.S. for training.
- c. The commitment to devolve much of the planning of new or remodeled facilities to Department Heads.
 - This increased local capacity by increasing the challenge given to middle level managers.
 - This resulted in building plans relatively well suited to the needs of the campus.
 - The successful accomplishment of these difficult planning tasks resulted in a tremendous enhancement of the confidence of Department Heads and faculty in their capacity to solve difficult and complex problems.

2. The commitment of Egerton College management to reduce the potential chaos of the project to a minimum.

This in turn led to:

- a. The continuance of the previously established decision-making arrangements within the College.
 - b. Resistance to a curricular change in the midst of the expansion program itself.
 - c. Increased pressure to encourage faculty who had been sent to the U.S. for training, to return rapidly to Egerton College.
3. The small size and stability of the staff at Egerton College.
 - a. Principal and Registrar could discuss problems with Department Heads on a frequent and face-to-face basis.
 - b. Department Heads, in turn, could discuss departmental level problems with their faculty and staff on a frequent and face-to-face basis.
 - c. The faculty members who were Heads of Department at the beginning of the AID project remained in these positions throughout the project. When a Department Head was sent to the U.S. for training, a member of his Department was appointed as Acting Head.
 4. The match of the management system at Egerton College to the types of internal and external problems facing the College.
 - a. Given the nature of the coproduction process involved in an institution of higher education, many daily management decisions must be made at the Departmental level by personnel directly involved in the operation of the college. Managers are needed who can inspire faculty and students to engage more than superficially in the educational enterprise.
 - b. The farms and dairy institute involve different types of problems than the academic department and are more similar to "profit centers" than the academic departments. Managers are needed who can direct the activities of staff and whose incentives are related to the effectiveness and efficiency of these operations.
 - c. Given the devolution of much of the day-to-day decision making to the Departmental level, the Principal can allocate his scarce time to monitoring the AID project, to obtaining support for the College, and to overall allocation of resources within the College.

5. The extraordinary match between the incentives facing major actors and project performance.
 - a. Everyone in the system benefited from the project achieving its stated objectives.
 - The Principal, as one of the major policy actors in Kenya, had a high commitment to the success of this project. His career was tied to this success. If Egerton College becomes a University, he would become the Head of the second (or third) University in the Country. Even if Egerton College did not become a University, his future career is dependent on this project being a major success.
 - The Department Heads also were personally benefited if the project succeeded. Enhanced prestige of the College enhanced their own positions, self-respect, and long-term career. Getting the best buildings they could for the money meant that they all worked in better facilities and could attract a higher quality faculty. Upgrading the educational level of the faculty adds considerable prestige to the College.
 - All faculty members, who were sent for training received a direct, personal benefit from succeeding in their programs of study.
6. The isolation of Egerton College management from MOA interference.
 - a. As a parastatal, Egerton College had considerable legal autonomy and exercised it.
 - b. Hiring and firing decisions were thus much more related to the work to be done and the performance of individuals in their jobs.
 - c. Decisions made at Egerton College could be implemented at Egerton College without waiting long periods for approval by MOA bureaucracy.
7. The capacity of top management (in particular, the Principal) at Egerton College to inspire trust and goodwill among Department Heads and faculty.
 - a. Department Heads in particular worked extremely hard during the expansion period often taking on more teaching assignments as well as their heavy involvement in planning the physical expansion.
 - b. Given the relatively high teaching loads, the success of the College is dependant upon more than a minimal level of input from faculty which appears to have been forthcoming.

Factors Associated with the Project Itself:

1. The simplicity of the project.
2. The common image of the project held by most participants.
3. The general agreement by all participants that the project was a desirable one.
4. Placing the project in an established institution where everyone had a stake in its success.
5. The basic technologies involved in the project were already well known locally.
6. The project did not swamp the capacity of the local management system to cope with it.

Factors Associated with the Environment:

1. Ample financial resources were made available to the College during the entire era.
2. Devaluation of the Kenya Shilling during the project was a fortuitous windfall for the construction phase of the project.
3. Not only were sufficient resources made available but the College received their MOA funds as a grant and could retain any funds they did not spend during the course of a year.
4. The supply of students was assured during the entire project.
5. Placement opportunities were assured during the project.

What Can Be Learned from the Egerton College Project

Many of the factors we used in explaining the Egerton College success were identified as conducive to development project successes by both the external and internal papers presented at the Workshop. We did not find, however, that the success at Egerton College was due to the presence of the type of managerial accounting and fiscal records recommended nor on the transfer of a management technology developed in the modernized countries and brought to LDCs by Technical

Assistance personnel. Nor did we find the type of top-down, highly centralized management system presumed by some analysts at AID to be an essential input to project success.

We would certainly not recommend that as complex an enterprise as Egerton College continue to operate with the minimal record-keeping systems currently used. As the environment becomes more volatile and less benign, difficult trade-off decisions will need to be made at Egerton College. Better data about the relative costs of different forms of instruction, different programs, different mixes of students, and different placement opportunities will be needed. But the Egerton College project should teach us that it is possible for highly motivated individuals to produce a major success without the financial management systems thought to be essential.

Management Enhancement Without A Conscious Management Enhancement Strategy

While our team found no evidence of either formal or informal strategies to enhance management at Egerton College, we also found that considerable management enhancement actually occurred as a result of the AID project. Management enhancement at Egerton College resulted from the learning acquired by managers at the College in the process of solving a wide variety of project-related problems. Because the project was located in an on-going enterprise, the management team already had been established and was working effectively together prior to the AID project. All members of that team had a stake in the success of the project. With the considerable devolution of decision-making responsibilities to the level of

Department Heads, many persons, who had never before had to cope with major building plans and facility improvement, successfully coped with these tasks. Since the results have been outstanding, the increased confidence and abilities of middle-level management at Egerton is substantial.

Further, considerable administrative depth now exists at Egerton College. Since Technical Assistance personnel were not used to substitute for absent Department Heads, and permanent members of the faculty were appointed as Acting Department Heads, many faculty members at Egerton have now had the experience of running a department. In some cases, these acting Department Heads were involved in the building process. In all instances, the acting Department Heads experienced the full array of problem-solving activities of running a department for a year and a half or two-year period.

While the decision-making arrangements for the day-to-day operation of the College did not change during the project, Egerton College management did learn new techniques in the management of the training aspects of the project. Close, personal monitoring of the academic programs of each trainee avoided the problem of trainees veering into long-term programs which were not approved by Egerton management.

The most problematic aspects of the project both involved others in their management. The technical assistance part of this project was probably the least successful aspect of the project and also the aspect which was least under the control of the management at Egerton College. Purchasing of equipment and books was also fraught with

difficulties primarily caused by administrative problems at the AID/Kenya mission.

Variations on Accepted Knowledge

Proposition I9 in Table 3 asserts that the success of development projects depends heavily on consensus on objectives and strategies. We also found that participants had a high level of agreement on the goals of the Egerton College expansion and attribute part of the success to this agreement. The nature of this agreement should be described in a little more detail, however. Faculty and management at Egerton College agreed on the general goals of the expansion: the construction of new buildings, the training in the U.S., and the expansion of the Student Body. While relatively detailed plans existed in the project plan, these detailed plans were not simply carried out during the project. The planning and construction of buildings was phased in over time. The plans for each building were developed locally during the project. Given the availability of funds, new buildings were added to the construction list toward the end of the project which were not envisioned at the beginning. Considerable room for learning and change about the details remained within the general agreement.

Some of the factors that our team considered to be associated with the success of the project have been viewed by others to be problems. Both the intermediate and final evaluation reports, while generally positive, criticized the project for not involving the TA personnel in a more active curricular reform during the construction phase of the project. One wonders why a donor would push an HCI to

undertake more simultaneous change. During the five-year project, they built a large number of new buildings, more than tripled their enrollment, and sent more than 60 faculty members to the U.S. for training. That is a lot of change to cope with at one time. The curriculum is one of their central coordinating devices. To change that in the midst of all the other disruptive changes could have produced chaos rather than improvement.

Further, why should a donor suggest that TA personnel assigned to a College for two years be primarily instrumental in curricular change. The TA personnel do not have a long-term stake in the curriculum or the institution. They are not familiar with demand and supply conditions. They come from entirely different institutions than Egerton College and were having difficulty fitting into this teaching environment in any case. Any curriculum they designed would probably need to be redesigned within a short time after their departure in any case.

How Would an Institutional Analysis Approach Differ

Time does not permit a full answer to this question. A complete answer requires a fully specified alternative research design to the one prepared for this project. Such a research design should involve at least a couple of person-months of effort and not a few days at the end of fieldwork and write up.

As a partial answer, I have enclosed a paper written by Larry Kiser and myself that identifies the basic elements of an institutional analysis approach. At a fundamental level, an

institutional analyst would want to obtain data about the nature of the goods or events being affected by a management system, about the rules in use constraining or enabling actions, and about the general cultural values of those participating in the project.

In our Egerton College report we described several types of enterprises contained within the College and the different types of management systems needed to control those systems effectively. In a study designed to evaluate institutions, how to examine the nature of the production and consumption processes involved would form a central part of the analysis. Each team would be expected to identify the production and consumption characteristics of the goods and technology involved in their project. To keep a research project manageable, only a few types of projects would be included so that one could examine how different management systems worked in facilitating or detracting from the success of a similar set of projects.

Concerning rules, an institutional analyst would want to know the formal and informal operational rules about: (1) how participants in various decision-making arrangements are selected, (2) what actions they are allowed to take, (3) how their decisions will be aggregated, (4) what information is made available to them, (5) what consequences can flow from their actions for themselves and for others, and (6) how payoffs are assigned to their actions and to consequences.

Concerning the cultural values, the institutional analyst would want to know how consistent or inconsistent the behavior needed to make a project successful is with the dominant cultural views of preferred behavior. Rules, together with cultural values, strongly affect the incentives that participants face in various project settings.

These elements of institutional analysis combine in a configurational manner so that no single set of institutional rules is predicted to enhance performance for all types of projects. There are no panaceas in this approach.

If I were to design an impact study of how the use of various types of managerial and financial record-keeping systems affect project performance, I would first want to identify the types of development projects to be included in a theoretical analysis. I would expect the same type of record-keeping system to operate differently in a project extending credit to farmers, from one involving the construction of buildings in a concentrated location, from one involving construction located in widely dispersed locations, from one involving many interpersonal interactions among a small set of individuals located on one site, or from one involving large scale service delivery over a widespread area.

One appropriate type of research design would be to look at two kinds of record-keeping systems (rules for what information has to be made available to whom at what time and in what form) in two or three kinds of projects. If one were to conduct 18 studies, then, one could include three different kinds of development projects. The basic design matrix would then be a 2 x 3 matrix. One could then select three cases for each cell in the matrix. While no statistical generalizations could be made for the findings from such a study, the 18 cases might begin to inform AID management what difference particular types of management tools appeared to make when used in different types of projects. Alternatively, one could include three kinds of record-keeping systems in two types of projects.

Each team would be presented with a list of theoretically defined variables about which they would be expected to gain information and alternative ways they might obtain this information. The variables would be related to the elements of institutional analysis identified in the attached paper.

Each team would be asked to address certain key questions about:

- the types of problems routinely faced in a particular type of project;
- the stability and/or change of input or output processes;
- the incentives facing participants in filling out records in particular ways;
- the incentives for rapid and accurate processing of records;
- the need for and use of information contained in records for decision making;
- the alternative sources of information available to participants about what is happening in a system;
- and other theoretically identified variables.

If members of research teams thought other variables would be important, they would be asked to define them so that all teams could understand what they meant and to give some operational ways of obtaining information about these variables. It is extremely healthy in designing good research to have competing hypotheses posed in such a way that data about variables contained in such hypotheses could be obtained across all studies.

One of the required appendices to each team's report would be the list of agreed upon variables and information about each. Thus, each project would produce information about the equivalent set of variables included in the study.

The case studies would then be written up in a generally similar manner, but each team would have some freedom to describe in more detail aspects of their findings that they thought were of particular importance.

The above is only a brief sketch of an alternative strategy. I have enclosed a research design which we used in one of our police studies to illustrate the use of a design matrix of the type I described above.