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Improving development management: lessons from the evaluation of USAID projects in Africa

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One of the most important lessons to emerge from the experience with foreign aid over the past three decades is that success in promoting economic and social progress in less developed countries (LDCs) depends not only on the ability of their governments to define appropriate macro-economic policies and to mobilize financial, human and technological resources, but also on their ability to manage those resources effectively. The impact of development assistance projects and programmes is weakened substantially if foreign aid is mismanaged by either donors or recipient governments.¹

Governments in developing countries have long struggled with problems of management, and international assistance agencies have devoted a large portion of their financial, administrative and technical resources to improving organizational and management capacities in LDCs.² Yet, managerial problems still undermine the capacity of public and private organizations in developing countries to implement policies, programmes and projects effectively.³

International development assistance alone will have little impact on bringing about economic self-sufficiency and social progress in LDCs unless public and private organizations in developing countries take a stronger role in planning and managing development activities. After examining a large number of the US Agency for International Development's (USAID) projects, the General Accounting Office, which monitors and evaluates the Agency's performance, recently reported that

the management and effectiveness of AID projects in health care, water development, agricultural assistance, as well as projects to strengthen governmental institutions, ultimately depend upon the ability of host countries to absorb US aid and implement the projects.

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GAO officials argued that without stronger implementation capacity in LDCs

the results are either large obligations of unspent assistance funds or expenditures of funds for projects with limited life after US assistance is terminated.⁴

Weaknesses in development management capacity in developing countries seriously undermine the implementation of USAID-funded projects. USAID's Inspector General reported that his reviews of foreign aid

have shown delayed projects, increased costs flowing from these delays, frequent poor logistical support by host governments, a general lack of audits of contract and grant costs by the host governments, procurement inefficiencies in the acquisition of both goods and services, and administrative difficulties on the part of host governments in executing bid procedures, preparing contracts and administering contracts.⁵

Deficiencies in development management have been especially crucial in Africa. The General Accounting Office's review of USAID's Sahel Development Program, for example, found that despite the fact that international donors have spent more than \$13 billion in this part of Africa over the past decade, these countries have made little economic progress. The GAO recognized that the lack of progress was due to myriad economic, political and physical problems in the area, but noted that a major problem contributing to slow rates of economic growth in the Sahel 'is the weak capabilities of the Sahelian governments to plan and manage economic development and to co-ordinate donor activities'.⁶

Because management in less developed countries has become a more serious problem in recent years, USAID's Center for Development Information and Evaluation (CDIE) began an assessment of development management performance in 1984. The first round of studies focused on Africa, and this article summarizes their findings. It describes the approach to evaluation, identifies the factors influencing project implementation and reports the major lessons for improving development management capacity in LDCs. Only the major findings are summarized here; supporting evidence and illustrations can be found in a larger synthesis report and in six case studies published by USAID in 1986.⁷

The development management evaluations

The evaluations of development problems and capacities in LDCs began with a reconnaissance of more than 1,000 projects undertaken

by USAID in African countries over the past ten years. A content analysis of factors affecting their implementation was done of a sample of 277, and an in-depth examination was made of six large-scale agricultural and rural development projects. The evaluations had three purposes: (1) to identify the major factors that influenced the implementation of those projects; (2) to identify from the experience with the projects, the practical lessons for development management; and (3) to draw from those lessons implications for enhancing development management capacity in developing countries.

Development management was defined broadly as a process through which individuals and institutions in developing countries organize and use the resources available to them to achieve specific development objectives.

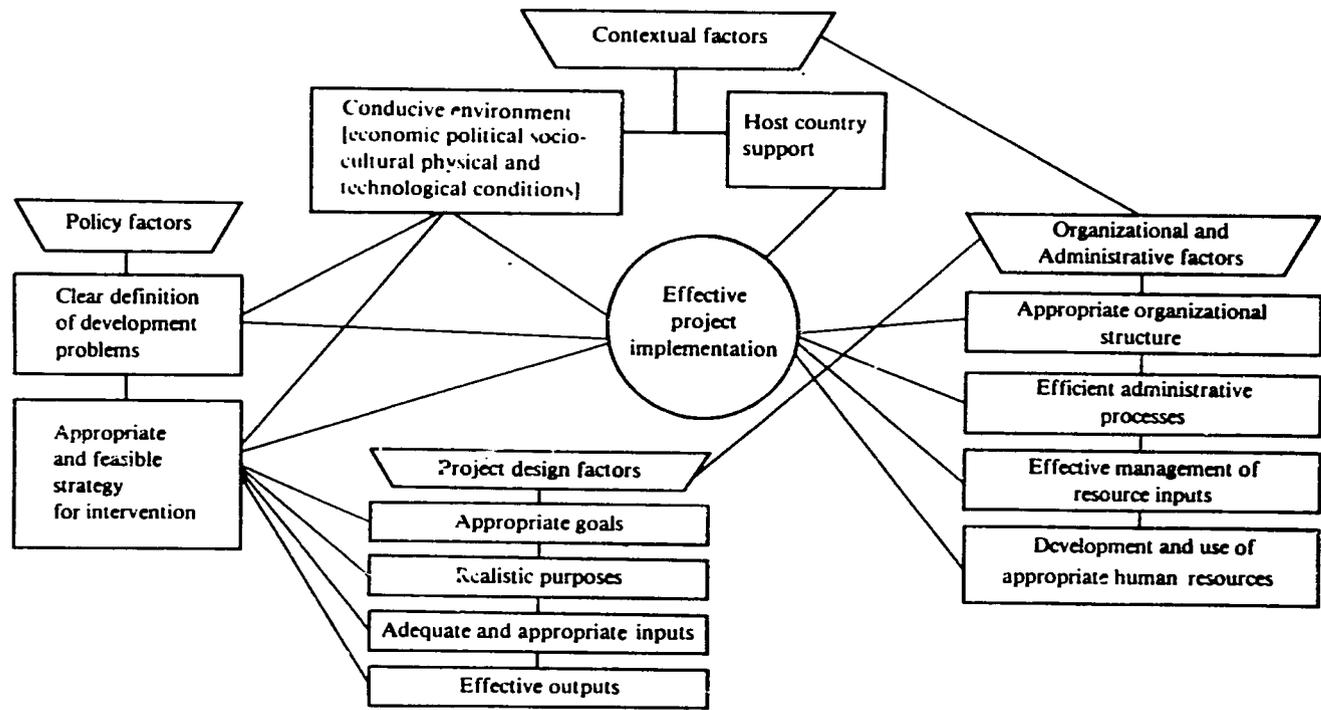
Development management capacity was assessed by the effectiveness with which development projects were implemented. The content analysis of the 277 project sample indicated that project implementation is influenced by four sets of factors: (1) policy, (2) design, (3) contextual and (4) organizational and administrative (see Figure 1). The content analysis revealed the frequency with which these factors affected the outcome of the projects, and the problems encountered are summarized in Table 1.⁸

CDIE corroborated evidence that these factors were important through intensive field studies of six agricultural and rural development projects in Africa. Multidisciplinary teams carried out in-depth field assessments of: (1) the North Shaba Rural Development Project (PNS) in Zaire;⁹ (2) the Egerton College component of the Agricultural Systems Support Project in Kenya;¹⁰ (3) the Bakel Small Irrigated Perimeters Project in Senegal;¹¹ (4) the Niamey Department Development Project (NDD) in Niger;¹² (5) the Agricultural Sector Analysis and Planning Project (ASAP) in Liberia;¹³ and, (6) the Land Conservation and Range Development Project (LCRD) in Lesotho.¹⁴

Although each project was somewhat different in its characteristics, the sample was representative of projects that AID generally supports in Africa. The high cost of field studies limited the sample to six. A profile of the projects' characteristics is found in Annex 1.

The cases identified and assessed the factors affecting the implementation of each of the projects and analysed the relationships among the factors in shaping their outcomes. The case studies offered at least two kinds of evidence. First, they provided information about how the four sets of factors described in Figure 1 affected the implementation of the six African projects. Second, they yielded

FIGURE 1
A conceptual framework for development management evaluation



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TABLE I
Type and frequency of problems affecting the implementation of 277 aid-sponsored development projects in Africa, 1973-83

Contextual problems	88.4%	Financial and commodity management problems	86.3%
Conflict between donor procedures and local culture	15.5	Ineffective commodity procurement, storage, distribution or use	24.2
Socio-cultural	13.9	Inadequate long-term financial planning	10.4
Technological	13.1	Accounting deficiencies	8.8
Inappropriate technical assistance	9.8	Construction delays	7.5
Economic	8.6	Lack of adequate or appropriate commodities	7.1
Overly complex design for local conditions	7.3	Inadequate financial resources	6.7
Others	20.2	Ineffective operational budgeting	6.7
Organizational problems	91.6%	Others	14.9
Inadequate organizational support systems	54.7	Human resources	
Ineffective organizational relationships	27.1	Management problems	88.4%
Others	9.8	Staff problems —	
Administrative problems	87.4%	inadequate motivation, high turnover, scarcity of trained people, incompetence	42.0
Inadequate authority or ability of project organization to make decisions	28.1	Ineffective interaction between project staff and beneficiaries	21.6
Insufficient or ineffective co-ordination	25.6	Weak leadership	8.2
Inadequate programme planning	10.7	Others	16.6
Inadequate data collection, monitoring and communication	9.1		
Others	13.9		

Source: Adapted from Janet Tuthill, 'Signposts in Development Management: A Computer Based Analysis of 277 Projects in Africa' (Washington: US Agency for International Development, 1985), mimeo.

important lessons and conclusions about the nature of development management and about how governments in developing countries and international assistance agencies can improve managerial practices in public and private sector organizations working on development projects.

Some of the lessons confirm what is already known about managing development projects in Africa. But in confirming known problems the cases highlight the need to cope with these recurring issues more effectively. Other lessons challenge conventional wisdom.

Policy and design factors

The cases indicated quite strongly that the policies of national governments and international assistance agencies played an important role in identifying problems and opportunities for intervention and in shaping the design of projects. National policies also had a direct impact on the implementation of projects in Kenya, Zaire, Senegal, Niger and Liberia, and strong indirect effects on the project in Lesotho.

National policies played an important role in project design by providing parameters for the definition of goals and purposes, and for the selection of inputs and outputs. They reflected, and in some cases helped shape, the environment in which the projects were carried out, and the amount of support host country governments gave them. For example, the Land Conservation and Range Development project in Lesotho resulted in part from, and was made possible by, changing government policy towards land use during the late 1970s. Although it took the government a long time to develop the capacity to implement these policies, primarily because of opposition from traditional chiefs, the objectives of the LCRD project would have been difficult to achieve without policy changes and political commitment from the government. Similarly, the success of the project in Kenya to expand the capacity of Egerton College to produce graduates who could help increase smallholder output ultimately depended on changes in national agricultural pricing policies. No matter how successful the project was in expanding Egerton College, its graduates would have little real impact if national pricing policies remained adverse to small-scale farmers.

Moreover, the evaluations clearly showed that projects can, in turn, have a strong influence on government policies and programmes. Two of the projects — in Zaire and Senegal — influenced the ways in which government officials organized rural development programmes by

demonstrating the advantages of interacting more closely with beneficiaries, even though the projects themselves were not entirely successful in achieving their original goals.

Another frequent observation in the content analysis of the 277 African project evaluations, however, was that project designers often gave too little attention to policy implications in planning development activities. The failure of some of the project designers adequately to understand policy and contextual factors adversely affected the results. The content analysis showed that project designs were often overly ambitious and aimed at unrealistic targets in too short a period of time, that projects were designed too quickly or in far too much detail, and that the activities proposed often conflicted with traditional values or local conditions within the country where the project would be implemented. These design deficiencies restricted the actions of managers and organizations responsible for implementation.

The evaluators emphasized that to the extent possible, project goals should be kept simple and discreet as was done in Kenya and Senegal. Attempts should be made to design projects as an incremental series of tasks that can be accomplished within existing or easily expandable management capacity. But they found that in at least four of the projects — in Niger, Liberia, Lesotho and Zaire — problems were complex and multifaceted. Simple and discreet interventions could not be identified in advance, and multiple interests could not easily be accommodated. In such cases, they argued that goals must be defined broadly at the outset and refined incrementally during implementation. In such circumstances, development managers must be skilled in coalition-building, obtaining consensus from diverse interests, and providing a sense of direction for the participants and beneficiaries during implementation. The evaluations uncovered evidence that even in complex projects, however, planners must at least be clear about overall objectives if not about specific strategies, so that development managers can set general directions to be supported and followed by those responsible for carrying out the project's many components.

Another recurring theme in all six cases was that project designs must be flexible enough to allow for change and adaptation during implementation. The agricultural and rural development projects were found to require long periods of time to achieve their objectives; flexibility to change direction as changes occur in policy, the socio-economic environment and government support; and a secure commitment of financial, technical and human resources over a five to ten year period.

Most of the factors affecting implementation, particularly in the more complex projects, could not be predicted accurately during the design phase, especially if there was a long gap between the time the project was designed and its implementation. Even exhaustive feasibility analysis and comprehensive planning could not anticipate changes in policy, contextual and administrative conditions that affected the outcome of the projects. Nor could planners always accurately identify potential problems and opportunities, or predict with certainty the behaviour of participants and beneficiaries. During the implementation of the Agricultural Sector Analysis and Planning project in Liberia, for example, there was a political *coup d'état* and the priorities of the government in the agricultural sector changed rather drastically. Moreover, the Minister of Agriculture was replaced five times in as many years. After the coup, severe economic problems created budgetary constraints that adversely affected the implementation of the project. The evaluators concluded that designers should provide only the overall objectives for the project, and should leave the choice of implementation strategies and tactics to the project's managers, who in any case would be held accountable for the results.

The evaluators concluded that designers must tailor the project as closely as possible to local conditions and needs, even if this reduces the potential for widespread replication. They also emphasized a seemingly obvious but often neglected point: that sufficient and appropriate inputs must be provided by USAID and the host country governments in order for projects to be implemented effectively and that some discretionary funds should be provided for project managers to respond to changing needs during implementation. Projects should not only include resources that are directly related to the achievement of goals, but also those that indirectly affect implementation by establishing the project organization's legitimacy and by creating support among potential participants and beneficiaries. Projects should include inputs that provide quick, visible results in order to meet the immediate needs of participants and beneficiaries, as well as inputs for achieving longer term, more fundamental changes.

These findings imply that USAID should give more careful attention in designing projects to the potential impacts of policies on project implementation and to the policy changes that may be needed in order for the project's objectives to be met. Provisions for policy changes should be made during early negotiations with host country

governments, in 'conditions precedent' to loans, and in performance criteria for the release of aid funds during project implementation.

Finally, the evaluations concluded that although national policies influence the outcome of projects, aid agencies could neither predict with certainty the impacts of policy changes nor always convince the government to make the changes necessary to implement the project effectively. In any case, policy changes alone were not sufficient to guarantee effective implementation. Successful implementation also depended on appropriate design, a conducive environment, and effective organization and administration.

Environmental and contextual factors

Contextual and environmental factors affected implementation in more than 88 percent of the 277 African project evaluations included in the content analysis. For example, more than 17 percent of the evaluations claimed that USAID's project planning and management procedures were incompatible with or adversely affected by social, cultural or economic conditions in the host country. Nearly 26 percent indicated that environmental conditions were not conducive to implementing the projects as they were designed.

Among the lessons drawn from the six case studies were:

First, the social, cultural and economic environment in a country is a major factor influencing project implementation. For example, traditional institutions and practices were seen as obstacles to implementing the project as it was designed in Zaire, Niger, Liberia and Lesotho, but in Kenya and Senegal they were found to be useful instruments through which the staff and the local population participated in development activities. In cases where traditional institutions and practices clashed with modern management needs — as they did in Niger, Lesotho and Liberia — project planners and managers had to make difficult choices about which of them they would attempt to change.

Second, all of the evaluations found that the degree to which host country governments supported projects also influenced their implementation. Where host country support was strong, as in Kenya and Senegal, it contributed to more successful implementation. The lack of support — or, more frequently, weak support — had deleterious effects in Liberia and Zaire. When government financial support for the project was not forthcoming in Zaire, strong local leadership and effective internal management were needed to overcome the resulting problems.

The evaluations indicated that contextual factors often cannot easily be changed, but they must at least be understood so that projects can be managed effectively within existing constraints and so that appropriate strategies for coping with them can be developed.

Organizational and administrative factors

The evaluations also identified a broad range of organizational, administrative and procedural factors that affected the implementation of the six African development projects.

Organizational structure

Organizational problems arose in more than 91 percent of the 277 African project evaluations subjected to content analysis. The most critical were inadequate support systems and ineffective organizational relationships.

The lessons drawn from field evaluations of the six agricultural and rural development projects were as follows:

First, the 'organizational culture' in which all six of the projects were carried out shaped the opportunities for and created constraints on effective administration. The organizational culture in African countries rarely conformed to Western images of efficient and rational procedures that were often called for in the project designs, and rarely were technical advisers able to change the local culture sufficiently to enable foreign methods and techniques to work as effectively as they thought they should. Given this experience the evaluators pointed out that an appropriate organizational structure for a project is a crucial variable in its success, but that there are no universally applicable arrangements. In some cases strengthening existing organizations was most effective; in other cases, new organizations had to be created to overcome constraints and obstacles to change.

Second, the cases shed some light on the most effective internal organizational arrangements. Although a high degree of centralization and hierarchy characterized most of the institutions that implemented the projects in these six African countries, the decentralized organizations that implemented the projects in Zaire, Senegal and Kenya seemed to be more effective in devolving responsibility and authority. They also seemed to be more effective in strengthening administrative capacity at middle levels of management, in keeping organizations more responsive to clients and beneficiaries, and in developing a sense of 'ownership' among project staff and participants. Managers in decentralized organizations could discern

changes in their environment more easily, provide better feedback to top management, and elicit more effectively the participation of beneficiaries, than those in centralized bureaucracies.

Third, the cases emphasized that organizational changes required to achieve project goals must be deliberately planned and carried out as part of project design and implementation. Sufficient resources must also be provided for bringing about these changes. It cannot be assumed that organizational reforms will occur automatically as the result of policy changes or as a result of technical activities pursued during the implementation of a project. The Liberian and Zairian cases, especially, found that trade-offs had to be made in the design phase between the amount of time and resources that would be devoted to achieving technical objectives, and those that would be committed to achieving organizational reforms. When strategies were not well developed for both sets of activities, the attention given to one during implementation was usually at the expense of the other.

Fourth, one of the strongest conclusions to emerge from the cases was that sufficient flexibility must be given to development managers to make changes in organizational structures and institutional arrangements during a project's implementation, since the impact of organizational structure could not be accurately predicted during the design phase and changes in leadership, resources, environment and policies all affected the efficacy of the project implementing unit. In Zaire, for example, the ability of the managers of the North Shaba project to abandon the farmers' co-operatives called for in the project design when it became clear that farmers were opposed to them, allowed the project to proceed more effectively.

Fifth, the case studies also came to strong conclusions about inter-organizational relationships in project implementation. Supportive links between project organizations and others in their operating environment were found to be essential for successful implementation. However, the project organizations in Kenya and Senegal that had a high degree of autonomy and independence in decision-making, and control over resources and operations, seemed to be more successful than those that were under the close control of central bureaucracies.

The cases indicated that an appropriate balance between independence and accountability must be struck in designing organizations for project implementation. Projects that were located in remote or isolated areas in Zaire, Senegal and Lesotho, required a large amount of autonomy, independence and control over their own resources in order to respond effectively to local needs and demands.

However, they also needed adequate financial, technical and logistical support from external organizations or higher levels in the bureaucracy to operate efficiently under hardship conditions. In all of the cases informal networks of co-operation and interaction with higher level bureaucracies, supporting organizations and beneficiary groups were as important, and usually more so, than formal organizational links.

Sixth, co-ordination between government agencies and private organizations was critical in the implementation of all of the development projects. But the evaluators found that co-ordination depended more on the creation of incentives and inducements than on formal requests or orders to co-operate. Co-ordination and co-operation depended ultimately on the degree to which various groups and organizations identified favourably with the goals of the project, obtained benefits from it, or saw their own interests enhanced by its success. Not surprisingly, co-operation was easier to elicit in projects such as the Bakel river basin programme in Senegal, in which managers developed a sense of 'ownership' among participants and beneficiaries.

Moreover, the case studies found that sustaining the benefits of development projects depended on building local and national institutions capable of making decisions, allocating and using resources, and managing their own development activities effectively after international funding ended. Planning for the transition from temporary project organizations to sustainable institutions was an important management task in all six cases, but government and USAID officials did not give it careful attention in any of the projects except the one in Kenya.

Finally, the evaluations found that while supervisory functions of the USAID missions could improve project implementation, foreign assistance personnel should not attempt to intervene too strongly in the on-going operations of the implementing organization unless it so requests. The aid agency's role should be to develop a sense of 'ownership' and responsibility in the implementing organization, and to help provide the resources necessary for it to accomplish its tasks.

Administrative procedures and practices

The content analysis found that 87 percent of the 277 USAID projects in Africa encountered administrative problems.

The evaluations of the six agricultural and rural development projects suggested that the lack of or weaknesses in formal

administrative systems obstructed the successful completion of some of the projects, but that they were not always essential preconditions for success. Appropriate informal and indigenous administrative procedures worked as well, if not better, than formal systems in Kenya, Zaire and Senegal, where projects had strong leadership and committed staff. Relatively simple, informal, indigenous procedures were usually more appropriate and effective in developing countries than complex, formal, Western systems. Administrative procedures that delegated responsibility and decentralized functions were the most direct and effective way of developing the managerial capacity of middle-level staff in project organizations.

Also, different types of administrative procedures, with different skill requirements, were often needed for different components of a project. In the projects in Zaire and Senegal, for example, it was found that the kinds of administrative systems used by the project-implementing unit were usually too complex or sophisticated for beneficiary groups or small-scale organizations operating in rural areas. The evaluators concluded that administrative systems must be tailored to the needs, capabilities and resources of the groups who will use them; again, a seemingly obvious lesson that was only sporadically heeded in the African projects.

One implication of these findings is that the administrative procedures of AID and the LDC government should provide sufficient latitude for creativity, innovativeness and responsiveness on the part of project managers and staff. Administrative procedures should balance flexibility for managers to respond to complex and uncertain conditions with accountability for achieving development goals. The aid agency's administrative procedures should support the host country's development institutions, and not constrain them as they did in several of the African projects.

Management of resource inputs

About 86 percent of the 277 projects included in the content analysis had financial and commodity management deficiencies.

The case studies indicated that in those projects in which the distribution of large amounts of supplies and equipment was essential to achieving project goals, appropriate commodity procurement, storage, inventory and distribution systems had to be established quickly if other components of the project were to be implemented effectively. But the case studies also found that an important element of effective commodity management was the procurement of

equipment and supplies that were appropriate to the needs of participants and beneficiaries, and to the conditions under which the project had to be carried out. This principle was not applied in the projects in Niger, Senegal and Kenya, where 'tied aid' requirements led USAID missions to order American-made equipment regardless of its appropriateness. The evaluators recommended that in cases where 'tied aid' requirements conflict with the needs of the project, AID should approve procurement waivers.

In the projects that depended heavily for their success on the provision of commodities, logistics management was most effective when it was made the responsibility of a full-time experienced staff member or unit, and when AID provided adequate training and technical assistance to support the logistics managers, as was done in Zaire. Special attention had to be given to establishing a special, reliable, procurement and supply network for projects located in physically remote or distant rural areas that were at the 'tail end' of the government's regular supply channels.

The case studies concluded — somewhat in conflict with conventional wisdom — that although formal financial management systems could enhance the project organization's implementation capacity, the existence of elaborate procedures or Western-style practices was not usually a precondition for success. The projects in Kenya, Zaire and Senegal were quite successful using indigenous or rudimentary procedures that were sometimes not considered adequate by USAID. Indeed, severe problems arose in projects in Senegal and Niger from the attempt by USAID to impose its own accounting and reporting standards on developing country organizations.

The evaluators suggested that whenever possible USAID should allow project implementing organizations to use indigenous accounting systems to obtain financial information, or assist them to adapt indigenous procedures, before insisting on the use of new or separate procedures that produce only financial reports for USAID. They also recommended that aid agencies provide adequate training in financial management to allow project-implementing organizations to meet their financial reporting and accounting obligations, as well as to do long-term financial and budgetary analysis of recurring costs. In brief, they argued that aid agencies should not impose special requirements on development organizations without providing the resources to assist them in meeting those responsibilities.

The management of technology transfer was also important because all of the USAID-funded projects in Africa had a technological

component. However, other factors such as leadership, commitment, and a sense of ownership and participation by beneficiaries turned out to be as important as -- if not more crucial than -- the kind of technology that was transferred. The cases showed that inappropriate technologies were introduced in some of the projects because of organizational inertia or the failure to assess the feasibility of technology transfer before proceeding with testing or application. Problems arose because of the unresponsiveness of project designers and managers to the desires and needs of beneficiaries, or because political criteria took priority over local needs.

The evaluators concluded that serious attention must be given in project design and implementation to selecting technology that is appropriate to local conditions and that is simple, low cost and adequate to the needs of its intended users. They argued that technologies transferred to developing countries should be within the 'management capacity' of the organizations that will disseminate and use them. More sophisticated technologies should be introduced incrementally only as the need arises and as the management capacity of the implementing organization expands. And they urged USAID to pay more serious attention to ways of adapting indigenous technologies, or of supporting indigenous efforts to develop local technologies, before prescribing the transfer of technologies from the United States. Adequate training and support systems must be provided for using and maintaining equipment and supplies transferred to developing countries.

Human resource management

The content analysis of the sample of 277 projects found that over 88 percent encountered human resource management problems. The lack of adequately skilled, competent or experienced staff, high turnover rates among trained staff, and low levels of motivation or commitment among personnel were the most frequently cited problems. In addition, about 21 percent of the evaluations cited problems with managing the participation of beneficiaries, with creating interest in the project among intended beneficiaries, and with implementing management improvement programmes.

The dominant conclusion from all six field evaluations was that strong leadership was a necessary condition for successful project management and that other factors generally could not compensate for weak leadership. The Bakel project in Senegal, an irrigation and crop production assistance programme, provided the most graphic

example of the importance of administrative and political leadership. During the project's early years, the implementing organization (SAED) was in constant conflict with farmers in the Bakel river basin. Irrigation supplies were not delivered to the project — or to the farmers — on time. SAED gave farmers little or no guidance about how to construct their irrigation canals and dikes. SAED's prices for the commodities that farmers had previously contracted to sell to the project were below market prices, and farmers were restricted to growing crops that SAED, but not the farmers, considered to be of high priority. Not surprisingly, many dissatisfied farmers broke their contracts with SAED and complained bitterly to local and national government officials.

After an investigation by the Prefect of the Department of Bakel, the director of SAED was replaced by a manager more sensitive to the needs of farmers in the region and more willing to exert strong leadership to achieve the project's goals. Changes occurred in the project almost immediately. SAED's organizational structure was decentralized to make it more responsive to its clientele. The new director allowed farmers to choose the crops that they would grow and to sell portions of their crops on the open market. He encouraged them to experiment with new ways of cultivating and harvesting their crops. The new director travelled frequently during his first six months in office, listening to farmers' grievances and discussing their problems with them.

The change in leadership in the project produced tangible results: rice production increased dramatically, rapid advances were made in constructing village storehouses, local co-operatives began managing seed and fertilizer distribution on their own, and joint decision-making committees were formed by SAED and the villagers to manage project activities and maintain equipment at the local level.

The other cases also showed that the legitimacy, acceptance, and support of the projects depended heavily on the motivation, commitment and responsiveness of project leaders to the needs of beneficiaries, project staff and personnel in other participating organizations. And the degree to which projects and programmes were successful in promoting institutional development depended in large measure on whether or not project managers and staff took an active role in managing and controlling the project — as in Kenya, Zaire and Senegal — rather than passively leaving its implementation to technical assistance advisers and the USAID mission.

Second, the evaluations confirmed that different leadership styles

were appropriate to different situations and phases of a development project or programme. In the Senegal project, for example, a charismatic, visible and dynamic leader was most effective. In the Kenya project, on the other hand, a collegial, low-key and participatory style of leadership was most appropriate. The cases concluded that adequate means must be developed to assess leadership impacts on a project during implementation, and to reorient or replace managers who are not providing appropriate leadership and direction.

Third, the cases also showed that leadership must be developed throughout a project organization, not only among top managers or administrators. The motivation, commitment and responsiveness of staff in pursuing development goals in the six agricultural projects depended to a large degree on the incentives offered to them to act creatively in dealing with problems and exploiting opportunities. One implication was that leadership training should be given to managers at various levels of responsibility within implementing units. Participatory management was found to be a valuable instrument of human resource development and helped strengthen the planning, decision-making and administrative skills of those individuals and groups that participated in the projects. Training was found to be one of the most effective means of increasing managerial capacity in project implementation and of sustaining benefits, but only if it was appropriate to local needs and requirements.

Finally, the evaluations emphasized that high turnover rates among staff and leaders in all of the projects, save the one in Kenya, weakened implementation. It was an especially serious problem in Liberia and Senegal. Stability in personnel assignments among technical assistance advisers, project staff and host country counterparts was found to be essential for effective project management. One suggestion emerging from this observation was that financial, professional and career mobility incentives must be designed into a project to recruit and retain good staff. Innovations such as dual technical and administrative promotion and pay tracks, and the provision of special amenities such as housing and educational allowances, are often necessary to keep good technical and managerial staff in projects located in remote rural areas.

Conclusions

The six field evaluations yielded a long list of variables that must be attended to in the design and management of development projects, but they also provided several overarching conclusions about the

potential for and limitations on improving development management.

They confirmed that the four sets of factors described in Figure 1 were inextricably related to each other; that is, they constituted a *dynamic system* in which each set had an impact on the others and, together, affected project implementation. And, because development management is a system of dynamically related factors that affect each other in complex and subtle ways, the evaluations implied that *development management capacity consists of the ability to deal with all four sets of factors*. All four sets of factors and the relationships among them must be given attention in the design of projects, in training programmes for development managers, in future evaluations, and in research on managerial and institutional development. More attention needs to be given in project design especially to political and cultural conditions that are likely to affect implementation.

The evaluations showed that development management is more than the application of a particular set of administrative systems, or of scheduling, procurement and financial management techniques. The evaluations confirmed that development management is a *process* by which leaders organize and use effectively the resources available to achieve specific development objectives. It involves *good judgement* in interpreting how the variety of factors influencing the achievement of project goals should be dealt with, and how the proper organizational arrangements, administrative procedures and management techniques can be applied in varied settings to achieve specific development objectives.¹⁵ Much more attention needs to be given by governments and assistance agencies to personnel selection for project management in order to ensure that managers have leadership and administrative experience as well as technical capabilities.

The evaluations implied that lessons of experience cannot easily be reduced to simple universal rules. The cases show clearly that development managers deal with complex problems, opportunities and environments. Managers work in situations and with problems that are fraught with uncertainty. Development managers must make complex *trade-offs* that reflect these uncertainties.¹⁶ Attempts by aid agencies to impose uniform, universal and rigid administrative systems and procedures on project organizations in developing countries are likely to lead to more rather than fewer problems during implementation.

Finally, an important implication is that training programmes to enhance development management capacity must distinguish between

the human element of management, consisting of leadership, judgement, experience and creativity, and the technical element consisting of management systems, regulations and techniques through which routine tasks are carried out and which Leonard refers to as 'bureaucratic hygiene'.¹⁷ Most training programmes for project planning and implementation concentrate almost entirely on the latter. Although improvements in technical aspects of implementation are necessary, they clearly are not sufficient. Leadership, judgement, experience and creativity are usually the most critical variables in the successful implementation of development activities, and are most often neglected in management training and improvement programmes.

Notes

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ANNEX A
Characteristics of six African development projects

Country	Project title and duration	Goals	Purposes	Inputs	Outputs
Zaire	North Shaba Integrated Rural Development Project (PNS) 1976-86	Achieve self-sufficiency in maize production (original) Achieve self-sufficiency in food production (amended)	Identify effective rural development process for improving smallholder production income (original) Increase small-farmer income by 75% as result of increased maize production; test rural development process that will be replicable in other parts of Zaire (amended) Develop institutions that can sustain increased production and marketing of agricultural products (amended)	AID funding — \$15.1 million in grants: \$3.5 million in loans Government funding — \$12.5 million	Capacity to produce and market maize increased Production of small tools established Overpasses improved or repaired Roads improved or constructed Farmer groups established Services provided to farm households

Annex A (continued)

Country	Project title and duration	Goals	Purposes	Inputs	Outputs
Kenya	Egerton College Expansion — Agricultural Systems Support Project	Upgrade quality of faculty and facilities at Egerton College to increase the supply of trained manpower in agricultural extension	Increase capacity of Egerton College to train larger number of agricultural and rural development extension workers to improve agricultural productivity in Kenya Strengthen ability of Egerton to expand student enrolments	AID funding — \$10.7 million in grants \$23.6 million in loans Government funding — \$11.3 million	Physical expansion of facilities achieved through major construction and purchase of specialized equipment and materials Additional training provided for Egerton faculty at US universities; Egerton faculty in training temporarily replaced by US faculty Government of Kenya operating support increased to expand student enrolment from about 690 to 1,632
Senegal	Bakel Small Irrigated Perimeters Project 1977-85	Improve dryland agriculture in Bakel river basin area	Introduce technologies of irrigated culture in villages along river in Bakel area Test feasibility of using solar pumping system in rural areas of developing country	AID funding — \$9.2 million US Peace Corps — \$150,000 Government of Senegal — million	More than 900 hectares of farmland irrigated Farmers trained in improved techniques Village-level irrigation management capacity established

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Annex A (continued)

Country	Project title and duration	Goals	Purposes	Inputs	Outputs
Liberia	Agricultural Development Program and Agriculture Sector Analysis and Planning (ASAP) Project 1972-86	Institutionalize sector planning as central mode for planning and policy formulation within Ministry of Agriculture	Develop fully functioning planning and evaluation division within Ministry of Agriculture to facilitate development of programmes to solve problems of traditional farmers	AID funding — \$3.25 million grant Government funding — \$1.75 million	Long- and short-term training received by 54 staff members of Ministry of Agriculture Technical assistance provided to Ministry of Agriculture on policy, organization, and operations Basic capacity to collect and analyse agriculture data established Basic capacity for agricultural project analysis established

Annex A (continued)

Country	Project title and duration	Goals	Purposes	Inputs	Outputs
Lesotho	Land Conservation and Range Development (LCRD) Project 1980-87	Reverse land erosion and increase agricultural productivity	Strengthen institutional capability within the Ministry of Agriculture Arrest degradation of crop and rangelands	AID funding — \$12 million Government funding — \$4.2 million	Technical capabilities strengthened within conservation and range management divisions of the Ministry of Agriculture and Marketing Plans developed to protect crop and rangelands from further erosion Prototype range management area established where improved livestock and range management techniques can systematically be applied

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Annex A (continued)

Country	Project title and duration	Goals	Purposes	Inputs	Outputs
Niger	Niamey Department Development (NDD) Project II 1980-86	Increase levels of rainfed agricultural productivity through improved production techniques	Institutionalize process of rural development through establishment of self-managed village organizations capable of assisting farm families	AID funding — \$18 million Government funding — \$9 million	System of technical service delivery established System of self-managed village organizations established System of credit delivery established System of agricultural input delivery established Increased women's access to development activities System to test and evaluate proposed technology established Co-ordination and management system for project zone functioning effectively