

5 How to Change--Piecemeal Approaches

Introduction

Congress and aid organizations could make broad institutional changes to foster sound technology decisions. A second alternative would be actions to incrementally eliminate the constraints to sound technology decisions that are internal to the development assistance organizations.

Such piecemeal approaches include:⁸

- o relieve the overriding pressure to move money;
- o improve project planning and ensure project flexibility;
- o increase personnel motivation and accountability;
- o hire enough of the right people;
- o improve use of in-house expertise; and
- o improve selection of consultants.

Relieve the overriding pressure to move money

Congress normally requires AID funds to be spent within one fiscal year. However, other approaches have been tried. For example, Congress has already acted to make funds “available until expended” for the Sahel Development Program. Reportedly, the experiment has been only somewhat successful. Some agency personnel still believe that, even though unspent funds from the current year will not be “lost,” the next year’s funding is likely to be reduced by at least the unspent amount.

⁸The following potential changes in development assistance agencies are not presented in order of priority or as a suggested strategy. All seem likely to improve aid agency abilities to match technologies to the ecological conditions of development sites.

Legislation has now been introduced to broaden the experiment by keeping other development assistance appropriations for Africa available until expended.

To reduce the force of AID's "spend the money" syndrome, Congress might have to complement such legislation by extending the budget cycle for development assistance. However, evaluation of this topic is beyond the scope of this paper.

Potential Oversight Questions:

- * How has keeping project funds available until expended affected project quality in AID's Sahel Development Program?
- * Remembering that MDBs are banks, and that the first function of a bank is to assure timely return on its capital, how does one manage the tradeoff between cautious decisionmaking and expediting the scale-up of technology interventions to get the flow of benefits started?

Improve project planning and ensure project flexibility

Assistance projects that intervene in a developing country's natural resource base require careful and sometimes extensive planning. In most cases, the scientific knowledge base is from temperate regions while the development site often is tropical. For example, U.S. experts in soil and agriculture may be unfamiliar with the behavior of certain developing country soils or with local crops and cultivation practices necessary to ensure their satisfactory growth. Further, the recipient culture and economy tend to differ substantially from those of the project designers, making it difficult to predict what types of projects are likely to be adopted. Most development projects are, in part, experiments.

Projects that rely heavily on the technology/ecology fit, therefore, must be designed to accommodate expected but unidentified changes. Short project duration makes it difficult to introduce technologies or implement projects gradually, and presents a serious obstacle to making mid-term corrections in response to monitoring and evaluation. And, too, measurement of the project's ecological and social soundness may take much longer than AID's typical three- to five-year project allows. Where the research element of a project is particularly prominent, adequate project length is essential.

Risks to natural resource systems and development assistance recipients may be reduced where projects include an extended technical planning phase, a gradual phasing-in period for adaptation of technology to the site's ecological and social conditions, and a length commensurate with achievement of results despite mid-term project realignment. Yet, many constraints work against these approaches. Means to address these needs include:

- 1) lengthened budgetary cycle and legislative language fostering improved project planning;
- 2) increased investment in development of resource development planning techniques that can be used by project officers to ensure consideration of technology/ecology fit;
- 3) increased projects with natural resource assessments and resource development plans as their goals; and/or

- 4) longer project periods with gradual technology introduction and increased project monitoring fostering mid-term corrections in objectives and methods as necessary.

A major constraint to increasing investment in planning is the impatience of client country governments, the U.S. Congress, and other donor country institutions. Already, many developing country officials perceive development assistance project planning as too lengthy and costly. Such critics probably are not aware that the standards of haste common to industrial countries may be inappropriate in developing countries. The annual budgeting process further inhibits extended planning: the need to move money commonly requires that project planning be substantially shorter than one fiscal year, while determining ecological compatibility may require an understanding of natural system behavior over at least an entire cycle of seasons.

Similarly, contractors and aid organization staff are keenly aware of the urgency for each project to produce substantial, quantifiable results by the end of its period. Production targets stated at the beginning of three- to five-year projects often necessitate rapid scale-up of technology interventions and, therefore, major project realignments may be viewed as counterproductive. Further, managers of short projects cannot easily accommodate major unexpected changes in their projects. Instead of today's common three- to five-year AID projects, durations of 10 to 15 or perhaps 20 years seem more appropriate.

These problems exemplify the drawback of piecemeal approaches.

If more projects were designed specifically to produce resource development plans for target areas but the plans do not become the basis for subsequent development assistance projects, nothing has been gained. Similarly, if projects were given longer periods for planning and implementation, but continued to move rapidly into full-scale operation and disallowed mid-term corrections, then damage from ecologically unsustainable technologies still might result.

Potential Oversight Questions:

- * What is the average length of your projects? Are projects generally expected to be self-sustaining after this period? Which kinds of projects are appropriate for gradual development and phase-in of technologies and which are appropriate for rapid scale up of operations?
- * What is the typical ratio of investment in project planning to investment in project implementation for various kinds of projects (agricultural, industrial, institution building, research, etc.)?
- * What would be the advantages and disadvantages of increasing:
 - a) the general lengths of projects?
 - b) the ratio of project planning expense to investment in project implementation?

Increase personnel motivation and accountability

The World Bank and AID have few mechanisms to reward officers responsible for developing successful technology interventions, or to induce improved decision making for those who have made poor technology choices. Project officers commonly move on to new projects or geographic regions prior to the termination of the initial project. This management problem will become more difficult, particularly in AID, as they shift increasingly to policy and economic support interventions where cause and effect may be obscure. In these, technology suitability is

even less likely to become apparent before the officer responsible has moved out of range of accountability.

Nevertheless, the level of effort invested in developing information for sound technology decisions could be made a prominent feature in periodic personnel evaluations. The World Bank, AID, and other development organizations could experiment with methods for assessing quality of development work. Such factors could be given at least equal weight to quantity of tasks accomplished and total funds obligated in personnel evaluations. Determination of adequate criteria for evaluating and attributing development success, however, is problematic.

Individuals generally behave so as to perpetuate their bureaucratic unit. Thus, it should be possible to facilitate good technology decisions by monitoring the technology development success/failure ratio for the various bureaus, departments, and offices, and then by rewarding successful units of the bureaucracy, perhaps with increased funding.

The World Commission on Environment and Development has recommended that periodic accounting of natural resource conditions and environmental quality indicators accompany reports of host country economic indicators prepared by development assistance organizations. This could provide a way to motivate the development assistance community to address the match of technologies with ecological conditions more carefully.

Potential Oversight Questions:

- * How is quality of work weighed against quantity of tasks accomplished in your personnel evaluation procedures?
- * How does your project evaluation procedure give feedback to a reward/accountability system that gives officers or offices credit or blame when projects are or fail to be sustainable?

Hire enough of the right people

Development organizations need to include increased numbers of staff trained and experienced in the development and management of natural resources as well as staff with expertise in the techniques of environmental analysis. This conclusion has been stated repeatedly at Congressional hearings. Gradually, the aid organizations have responded. Most of them now have some foresters and ecologists or environment planners in positions that employ their technical expertise. Still, most aid organizations seem to add environmental professionals only in reaction to outside pressures. A substantial part of new personnel could be selected from people having demonstrated expertise in natural resources development or environmental analysis at the direction of high-level AID and MDB management. The continued low numbers of such experts on agency staffs indicate that their importance is not yet appreciated by high-level agency personnel.

Currently, development assistance organizations rely on consultants and contractors for nearly all technical expertise needed to develop sustainable projects. Meanwhile, evidence favors hiring and placement of natural resource and social science experts where they will form

development strategy, identify project, program, and policy interventions, and support project implementation and evaluation. Each development organization could analyze its past evaluations and project records to obtain clearer evidence for or against this proposition.

Potential Oversight Questions:

- * Over the past decade, what has been the trend of the ratio of numbers of positions for technically trained staff to numbers of positions for generalists in your organization?
- * What evidence exists, or could be developed, to indicate whether your organization's current reliance on consultants for technical expertise is sufficient for successful development assistance operations?
- * What is your organization's current policy on recruitment and hiring of personnel with training and experience in natural resource versus personnel with training in economics?

Improve use of in-house expertise

The World Bank and AID operate in countries having a wide variety of cultures and environments. These organizations regularly rotate personnel among country and regional assignments to foster broad experience and career development. Few officers probably would be satisfied with an entire career tied to one country.

Concurrently, however, the AID rotation system constrains development of in-depth staff expertise on the cultures, languages, and environments of the recipient countries. This is compounded by lack of incentives for staff to investigate local people's knowledge of development opportunities and constraints, by heavy bureaucratic workloads, and by project funding procedures that inhibit staff participation in field activities.

The MDBs and AID have staff who have technical knowledge developed through academic training, professional experience, and self-education. Considerable knowledge--particularly regarding ecological conditions--remains relevant long after staff have rotated out of an assignment. Yet these people often are placed in positions which make little use of their expertise.

Without abandoning the rotation system, procedures for assignment of personnel could be adjusted to facilitate improved use of existing in-house technical expertise. For example, computer database techniques similar to those used to manage consultant rosters could be used to match staff technical backgrounds to agency assignment opportunities. (A broader approach to the problem of developing in-house expertise is discussed in section 6).

Further, AID and the World Bank could improve project design by developing in-house review boards made up of personnel experienced in the given geographic area. At present, few officers are called on to assist in designing projects that will be implemented at their previous posts. Some of these individuals probably would be interested in tracking proposed new projects and serving as a member of ad hoc review boards. Abstracts of proposed new projects could be sent to the boards for critical evaluation of likely impacts. Their reviews would be used by project officers to confirm or revise their technology choice. Through such a procedure, in-house expertise could be expanded without adding new

positions. However, in AID at least, this is unlikely to be feasible without broader changes to streamline project design procedures and reduce agency workloads.

Potential Oversight Question:

- * Recognizing the good reasons for rotating staff among country assignments, how do your organization's assignment and communication procedures assure best use of the technical and geographic area expertise of your staff?

Improve selection of consultants

Donor agency consultants and personnel of host country organizations probably will continue to provide most of the technical information and technical decisions for project design, implementation, and evaluation, even with expanded in-house expertise. AID consultants commonly are recruited in the United States or other industrialized countries. However, U.S. academic and government institutions generally have not encouraged development of expertise relevant to tropical developing countries. Similarly, consultants experienced in managing interdisciplinary teams to analyze development problems and interventions are scarce. Consequently, the combination of developing country experience and interdisciplinary technical expertise is rare; recruiting technically competent consultants for such teams will be difficult.

Therefore, it seems appropriate for the MDBs and AID to focus a significant part of their in-house training on methods of interdisciplinary analysis. AID has supported programs in U.S. universities and other institutions to develop in-house expertise relevant to its needs. For example, AID/S&T Forestry, Environment, and Natural Resources Office

has supported development of interdisciplinary planning methods at the International Institute for Environment and Development and elsewhere, and has held seminars to train in-house staff in their use. Other S&T Offices similarly could increase support for development of interdisciplinary expertise. This might be particularly relevant to the Bureau's Agriculture office as part of its new focus on conservation of agriculture's natural resource base.

A longer-term approach may be to increase the pool of U.S. technical expertise in the development and management of tropical resource systems. For example, certain Land and Sea Grant institutions are located in tropical U.S. areas and conduct research and development activities relevant to tropical developing countries. However, these institutions are few and generally have small numbers of personnel and financial resources for such research. Development of a significant tropical component in other such institutions could increase the pool of U.S. experts from which development organizations could choose consultants, and concurrently assist resource development efforts in tropical U.S. areas. Congress could explicitly identify development of tropical resource system curricula in certain Land and Sea Grant institutions as a goal, perhaps in the Foreign Assistance Act. Additional institutions that have developed specialized programs related to temperate resource systems may be induced to follow this example and enhance their own curricula in tropical resource development and management.