

# Chapter 2 OTA's Assessment Methods

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## SUMMARY

- OTA undertook this assessment at the request of the House Foreign Affairs Committee and the House Select Committee on Hunger, with specific instructions to examine people's participation in projects funded by the African Development Foundation (ADF) and the projects' results, sustainability, and replicability, The committees also requested an assessment of the Foundation's overall performance and how it could be improved.
- The methods used to assess ADF activities included extensive interviews with development experts in Washington and Africa, in-

eluding ADF staff; reviews of Foundation documents in Washington, D.C. related to participation, agricultural technology, and renewable resource management in ADFfunded projects; and workshops for OTA staff and contractors.

• Three five-member teams visited East, West, and Southern Africa for 23 days in 1987, observing 12 ADF-funded projects in 6 countries. Each group spoke with project participants, Foundation staff, local and national officials, U.S. ambassadors, AID mission directors, and representatives of other development and research organizations. The teams assessed ADF-funded projects, reviewed the Foundation's programs in each country, and suggested congressional options and ways for ADF to improve its work.

## WHY THIS ASSESSMENT WAS REQUESTED

When the African Development Foundation (ADF) was founded, Congress intended that its grassroots approach complement other types of aid already provided to Africa by the United States. Now Congress is evaluating how well U.S. development assistance to Africa is doing and ADF, as one U.S.-funded development program, has come under scrutiny. This is part of Congress' continuing attempt to ensure that the United States provides the most effective assistance possible via the Agency for International Development (AID), the Peace Corps, multilateral institutions, private voluntary organizations, and other groups that receive U.S. funds directly or indirectly. Although the focus here is on ADF's program, this study has broader applicability. For example, the Foundation's enabling legislation stresses the need for Africans to participate in their own development and ADF's experience with participatory development is relevant to the pending reauthorization of the Foreign Assistance Act of 1961.

The House Foreign Affairs Committee and the House Select Committee on Hunger requested this comprehensive assessment of ADF's funding program.<sup>2</sup> Their request noted the context in which U.S. aid to Africa takes place: "Strong humanitarian, political, and economic reasons exist for the U.S. to continue to participate in assisting African countries in their efforts to develop their human and physical resources. " As the requesting committees

IThis chapter and **app**. D provide detailed information for readers with an interest in evaluation methods. In addition, apps. C, E, and F list many of this assessment's participants. The results of the assessment begin in the next chapter.

<sup>&</sup>lt;sup>2</sup>Representatives Dante Fascell, Chairman of the House Foreign Affairs Committee, and Howard Wolpe, Chairman of its Subcommittee on Africa, and Mickey Leland, Chairman of the House Select Committee on Hunger, requested the study. Senator Paul Simon, Chairman of the Subcommittee on African Affairs of the Senate Foreign Relations Committee, supported their request.

said, ADF was established because "one reason given for the failure of many programs funded by the major donors has been the lack of involvement of the intended beneficiaries, especially low-resource farmers, many of whom are women." Their question was whether ADF had been any more successful in having an impact on development in Africa. The requesters specifically asked OTA to examine:

- the degree to which ADF's activities fulfill the Foundation's legislated mandate,
- whether ADF is supporting sustainable and replicable projects with positive impacts beyond the project level,
- the degree to which ADF is assisting the poor majority, and
- ways for ADF to improve its effectiveness.

In addition to these factors, OTA focused attention on the Foundation's use of technology and technical assistance and narrowed the scope to include only those projects dealing with agriculture and renewable resources. This focus, which covered 67 percent **(58** projects) of ADF's portfolio, made the assessment manageable and allowed OTA to use its previous experience in these areas.

OTA'S involvement with U.S. assistance to Africa began in 1984 when the House Select Committee on Hunger requested an issues paper on technology, agriculture, and U.S. foreign aid to sub-Saharan Africa (Africa Tomorrow, 1984). Then Congress requested a more detailed follow-up study examining agricultural technologies for low-resource African agriculture (Enhancing Agriculture in Africa: A Role for U.S. Development Assistance, in press, 1988). In 1986, OTA published an interim report based on that on-going assessment - Continuing the Commitment: Agricultural Development in the Sahel. This report included a one-month field visit to U.S.-funded development work in West Africa. The final report on low-resource agriculture in Africa provides a general framework for a resource-enhancing approach to African agriculture, discusses the overall role of technology, and details the potential of a number of technologies such as small-scale irrigation, agroforestry, and fertilizers.

This previous OTA work has emphasized the need to support participation of poor farmers, herders, fishers, and their organizations in the programs designed to assist them. An assess-

Box 2-I.—GAO's Look at ADF Management

In mid-1984 the Senate Appropriations Committee's Subcommittee on Foreign Operations requested that the U.S. General Accounting Office (GAO) determine whether ADF had the management capacity to carry out its mandate and to handle larger appropriations efficiently. The study was requested because of the uncertainty which followed the resignations of the first President and Vice-President in April and May 1984, barely 6 months after ADF had begun operations. GAO's analysis concluded that by late 1984 ADF had made progress in establishing its organizational structure. It had filled most of its authorized staff positions, established internal administrative procedures, grant agreements, and a project review committee, and was making plans for its accounting system.

GAO also concluded, however, that ADF should not focus on expanding its program significantly to approach the \$100 million it originally envisioned spending in 1990. (This number was revised to \$30 million in ADF's 5-Year Plan published in May 1985.) GAO raised a number of other concerns as well. Some, such as the need for a 5-year plan, have been corrected. OTA considers other issues still relevant, For instance, GAO felt that ADF had not:

- 1. identified which countries would receive priority funding,
- 2. determined to what extent ADF would provide loans and loan guarantees,
- 3. settled the extent to which ADF would emphasize private sector initiatives as encouraged by the Board of Directors,
- 4. established how ADF would coordinate with other donors, and
- 5. decided how ADF would meet demands for project monitoring and handle staffing for these tasks.

SOURCE: U.S. Congress, General Accounting Office, Issues Affecting Appropriations for the African Development Foundation, GAO/ NSIAD-85-62, May 7, 1985. ment of ADF thus builds on OTA'S experience by exploring, in depth, a program established to do just that.

OTA'S examination of ADF is the Foundation's second congressional review. The General Accounting Office (GAO) evaluated ADF's management capacity in 1985 (box 2-l). GAO, OTA, and the congressional requesters con-

## HOW OTA CONDUCTED THE ASSESSMENT

#### overview

This report presents findings about ADF's overall funding program in the area of agriculture and renewable resources, describes its performance, suggests areas for improvement, and notes opportunities for other development assistance organizations to learn from the Foundation's experience.

The work was conducted in several stages, each building on the previous one (figure 2-1). Field visits to 12 ADF-funded projects in Africa provided crucial information regarding ADF's field operations. OTA was not charged to evaluate the funded groups, however. Instead, teams visited projects to assess the overall ADF program.

In doing this assessment, OTA used a variety of methods to gather information at the program and project level, both in the United States and in Africa. In Washington, ADF staff and other experts were interviewed. Project documents, ADF's evaluations of 10 nearly completed projects, two country profiles, and additional information about its program were reviewed. In Africa, project managers and participants as well as national and local officials and other development funding groups were interviewed. These interviews provided abroad view of ADF's philosophy and policies as well as a measure of how well ADF implements its mission.

This assessment included several major steps. The assessment plan was developed in spring 1987; OTA organized the field teams and developed materials they would use that summer. suited in the early stages of this work, tapping GAO's previous work and exploring the possibility of a joint OTA/GAO effort. Finally, however, the committees requested that OTA conduct this assessment independently because OTA'S focus and experience better matched their need for an examination of the Foundation's impacts on development in Africa.

The reviews of ADF's Washington project files were conducted in August, the field teams went to Africa in September, and the synthesis meeting was held when the team leaders returned in October. This report represents only a snapshot in the life of the 12 ADF-funded projects and in the evolution of the organization. Changes in ADF's policies or practices made after the fall of 1987 are included in footnotes.

#### **Designing the Assessment Plan**

The congressional request identified critical issues related to ADF's mandate and suggested that the assessment include field visits to ADFfunded projects in Africa. To plan its assessment, OTA began in Washington with intensive interviews with approximately 30 experts in field evaluation methodologies and grassroots organizations. The most appropriate program evaluation methods were incorporated into OTA'S approach (see box 2-2). Also, ADF's staff were interviewed about their roles and work. An Advisory Panel established to guide OTA'S assessment of low-resource agriculture in Africa met in Washington at the end of April and was used to review the plan and begin developing field indicators to help assess four critical issues: participation, results, sustainability, and replicability. This panel suggested that the assessment teams lengthen their time in the field, that African team members be named for every country visited, and that data collected be disaggregated by gender.

OTA next conducted an initial analysis of ADF's project portfolio based on abstracts provided by ADF for each funded project. From

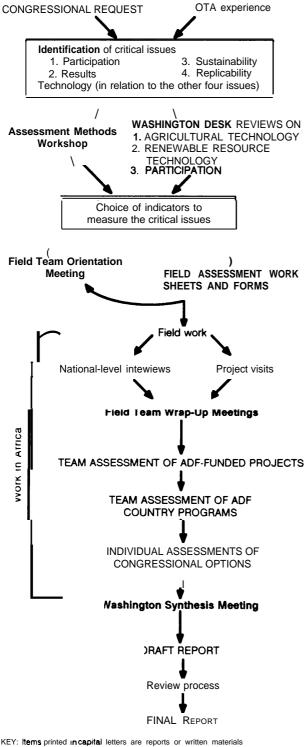


Figure 2-1. - Flow Chart of OTA'S Assessment Methods

Items printed in bold are meetings

SOURCE: Office of Technology Assessment, t988

this, OTA tabulated project information, including grant size, duration, maturity, geographic scope, activities, goods or services funded by the ADF grant, and intended outcomes. This analysis provided information on the range of project characteristics and average features so the countries and projects selected for visits would be representative of ADF's portfolio. The survey was limited to the 86 projects funded by ADF through September 31, 1986. Twothirds of these, or 58, dealt substantively with agriculture or renewable resources and were considered within OTA'S scope of work.

This assessment of funded projects must be qualified by the newness of ADF's program. Its first projects are just now nearing completion. Thus, OTA'S major focus is on suggesting how ADF's overall funding program can be improved, not on providing a definitive statement judging the results of ADF projects.

## **Developing Field Team Methods**

To develop methods for the field teams' use, OTA held a workshop with two purposes:

- 1. to review current field evaluation methods, and
- 2. to develop indicators to address the critical issues identified in Congress' request for this study.

The field research method used is a form of "rapid rural appraisal." In rapid appraisal, teams visit the field for a short time to obtain selected information needed for policymakers. This approach is quicker and more cost effective than some other research methods. It relies on individual and group interviews, observation, and local documentation where available (12, 21).

In the methods workshop, OTA staff, team leaders, and three consultants with extensive evaluation experience (app. C) spent 2 days:

- defining the critical issues—participation, results, replicability, and sustainability;
- converting these definitions into concrete indicators that could be observed and measured in the field; and
- designing worksheets on which to collect data for each of these issues.

Each critical issue had multiple dimensions and thus required several indicators to use in the field. OTA used a variety of sources to help define each issue, including expressions of congressional interest, ADF's operational definitions (from project proposal evaluation and monitoring checklists), suggested modifications by the Low-Resource Agriculture Advisory Panel, and relevant findings from OTA'S provious work on low-resource agriculture in

#### Box 2-2.—Recent Similar Assessments

Four agencies, with programs in some respect similar to ADF's, were evaluated recently. OTA used these evaluations to suggest assessment methods for this effort, such as the need for desk reviews, the number of projects to visit, and the time required for field work. Also, these examinations of grassroots funding organizations identified important common approaches and problems. Each organization's purpose and the intent and method of its evaluation are summarized here. The results of OTA'S assessment of ADF are compared to the findings of these evaluations in chapter **6**.

Appropriate Technology International (ATI). ATI's mission is to develop innovative approaches to technology, directly involving organizations and entrepreneurs in developing countries. The Agency for International Development (AID) conducted an external, mid-term review to assess ATI's performance under its cooperative agreement with AID, to identify lessons regarding technology transfer and promoting small-and medium-scale enterprises, and to assess ATI's ability to replicate its successful innovations. The evaluation included an assessment of 18 ATI projects in 10 countries by a contractor-supplied team. Members used open-ended, improvised, interview questions in the field, standardized among regions, The evaluation, including orientation sessions, field visits, and a synthesis meeting, took place in a 6-month period (16).

Inter-American Foundation (IAF). IAF provides grants and loans directly to Latin American grassroots groups and is the model on which ADF was based. It operates outside of other official U.S. development assistance channels, responding to initiatives of indigenous groups for social, institutional, and economic development. This internal evaluation reviewed the foundation's goals, procedures, and policies; initiated a strategic planning effort; investigated IAF's accomplishments, its role in U.S. relations in Latin America, and its effectiveness as a pioneer. A team of 3 evaluators reviewed extensive written materials, including IAF's legislative history, and conducted interviews with at least **200** people. Individual members of the team visited between 1 and 3 countries each; the process took 3 months (50),

International Fund for Agricultural Development (IFAD). This multilateral agency works to increase food production in some of the poorest, food deficit countries and to improve the nutritional level and living conditions of the poorest populations. AID conducted this external review, examining IFAD's program relative to U.S. development assistance policy and providing a basis for decisions regarding U.S. participation in IFAD, The evaluation methods included desk reviews of written materials, field visits to IFAD projects throughout the world, interviews with IFAD staff and representatives of other institutions, and a synthesis meeting. Teams used an open-ended protocol and questionnaires in the field. In all, 9 AID staff members conducted the evaluation over a 4-month period, spending 3 to 5 days at each of 19 project sites (39).

The United Nations Development Fund for Women (UNIFEM) provides funding and direct technical assistance for women-specific projects and serves as a catalyst to ensure women's involvement in mainstream development activities. The agency conducted this internal evaluation to assess the extent to which it is carrying out its mandate, to show the impact of development assistance on women, to document the fund's activities relative to the U.N. Decade for Women, and to identify future priorities. This was the most extensive and field-oriented of the evaluations and the one from which OTA borrowed the most methodology. UNIFEM included desk reviews, orientation sessions, field evacuations of projects, mailed questionnaires, and input from regional commissions in this project and program assessment. Regional field teams visited 42 projects in **24** countries; members were drawn from experts resident in the country or region. The work lasted approximately 1 year (38). Africa and other evaluations. OTA sought to develop indicators that blended quantitative and qualitative data.

The "participation" issue required the most complex set of indicators concerning who participates, when, and how. The focus was on equitable access to the project, the project participants' roles in all phases of the project cycle, project control, and the recipient organization's operational style. Indicators of equitable access, for example, were the types and levels of involvement of women and various ethnic, age, and income groups.

Assessing "results" included determining whether or not the project achieved its objectives. However, results also were defined to include a measure of the project's broader effects on participants, the recipient organization, and the community. Information on broad project outcomes was used as well as data on specific project outputs. OTA attempted to identify intended and unintended effects of several kinds: economic, social, organizational, environmental, policy, and technological. These results were examined in terms of the project's specific objectives as well as in terms of the local context and broader development goals.

"Sustainability" was considered the time related dimension of "results" while "replicability" was the spatially related dimension. Thus, effects beyond the grant period are considered under sustainability. Sustainability can be measured on several levels including maintenance of a resource, continuation of a project or activity, and persistence of an organization. Field measures included indicators for several levels, e.g., the institutional, social, economic, environmental, and technological sustainability of the ADF-funded projects.

Effects beyond the project locale were considered part of "replicability." Like sustainability, replicability is implied in ADF's purpose to achieve social and economic development in Africa through support of local self-help efforts. Ideally, even small projects should have an impact beyond their immediate location. This can occur in several ways: by serving as a model for other individuals or groups; by contributing to spontaneous adoption of new technologies by others; or by effecting policy change on a regional or national level. Also, the learning process that occurs during project implementation itself can be replicated by a funded group or others to plan additional activities. Therefore, OTA assessed whether groups' processes as well as their specific activities could be repeated.

The choice of technology has a direct bearing on participation, results, sustainability, and replicability in ADF-funded projects. Therefore, assessing the use of technology was also a part of OTA'S analysis of the four critical issues. Much research and experience in Africa shows that, in general, participation of poor farmers in increasing their productivity and incomes in a sustainable way is facilitated by technologies that are lower cost, use local resources, are readily learned, and increase incomes without unacceptably increasing risk. Distinguishing among high-cost, high-technology, highinput, and high-risk methods is important, however. And, ultimately, the appropriate use of technology must be judged by a careful analysis of a particular situation. Field teams were instructed to assess the appropriateness of technology choices only after interviewing project managers, researchers, and local officials in Africa familiar with the use of a given technology in that locale.

OTA staff used the input from the Methods Workshop to develop assessment materials for the three-field teams to use in Africa (app. D):

- Worksheets for teams to record data collected at project sites for each of the critical issues (Participation, Results, Sustainability, and Replicability);
- Project Assessment Forms for the teams to describe their analysis of project performance, based on information in the worksheets;
- Country Assessment Forms which teams used to assess ADF's overall performance in the country based on project assessment information as well as from additional interviews in Africa and information from ADF; and

• Congressional Assessment Forms for team members to provide suggestions regarding levels of congressional appropriations for ADF, ways to improve ADF's work, and lessons for other donors.

#### The Desk Reviews

A desk review is an analysis based on project documents. The overview provided by a desk review is usually complemented by field visits to selected projects.

Three specialists with extensive African experience reviewed ADF's files on the 58 projects selected for this analysis (app. C). All three reviewed the same files, but each with a different focus. One examined participation, another agricultural technologies, and the third examined renewable resources. Each person spent about 2 weeks reviewing files, meeting with ADF staff, and preparing reports. These reviewers:

- developed topologies of participatory methods, technologies, and funded organizations;
- described characteristics of participation and technologies and analyzed their strengths and weaknesses;
- determined how types of participation and technical methods are chosen and by whom;
- discussed how technical assistance is provided, and by whom;
- analyzed the possible implications of their findings for participation, results, sustainability, and replicability;
- identified concerns for the field teams to examine more closely during their time in Africa; and
- provided suggestions for improving ADF's funding program.

### Selection of Countries and Projects to Visit

Twelve projects were selected for visits, two in each of six countries. First, likely countries to visit were identified based on those with at least three ADF-funded projects within the scope of work. Based on these considerations, OTA formed an East Africa team to visit Tanzania and Kenya, a West Africa team to visit Niger and Senegal, and a Southern Africa team to visit Botswana and Zimbabwe.

Specific projects were chosen for visits based on the analysis of ADF's project portfolio. The projects represented ADF's portfolio in these respects: grant size, duration, maturity, and geographic scope. Also, attempts were made to include projects illustrating the range of agricultural activities and organizations funded by ADF. No information about project performance was available at the time of project selection. However, 2 of the 12 projects were among 10 undergoing simultaneous evaluation by ADF teams (NGK and PfP in Kenya).

The final list of projects included two which were not on OTA'S original list. The Dakoro Herders' Association project in Niger was substituted for the Iniminak Pastoralists Project after ADF expressed concern that OTA could learn little by visiting the latter project due to its delayed start and strained relations with local officials. The Development Fund of Silveira House in Zimbabwe replaced the National Council of Disabled Persons project in Matabeleland, Zimbabwe, due to concerns for the team's safety and validity of data collected in an area of dissident activity. Brief descriptions of the selected projects and summary project findings are included in appendix B.

#### **Field Team Work**

The three regional teams used the same methods so that their work could be compared across projects and across regions. Their work began in Washington with a 4-day Team Orientation Workshop. At this workshop, the U.S.-based field team members refined the methods and materials developed by OTA (app. D), prepared work plans, and met with ADF staff members.

Each team consisted of five members: three based in the United States (including the team leader) and an African member from each of the two countries to be visited (app. C). The Afri-

Each team spent 23 days overseas, visiting two countries. On the first 2 days in the capital city of each country, they briefed the African team member, met with host country officials, and interviewed the U.S. ambassador, AID mission director, and representatives of other development agencies (listed in app. E). Approximately 2 days were spent at each project site interviewing project managers and staff, members of committees and the Board of Directors, and project participants (independently from project staff). To encourage their participation, groups of women were at times interviewed separately from men. Small group interviews were complemented with individual interviews and, in several instances, with large group meetings. Between 1 and 20 project subgroups were visited at various locations where the 12 projects were being carried out. Teams also met with local non-participants and others in the project area, such as:

- local officials to gather information, including average production, income levels, and government policies regarding aspects of the project;
- researchers to learn about how well certain technologies performed locally; and
- representatives of others with similar projects (listed in app. E).

In all, approximately 800 persons were interviewed in project locales.



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can members joined the group upon arrival in each country. Members were chosen for their expertise in several of the following areas: evaluation methodology; technical expertise in agriculture, natural resource management, economics, or social sciences; foreign language skills, especially fluency in French for the West Africa team; and experience working with grassroots organizations in Africa. Most had extensive experience in at least one of the countries visited, Emphasis also was placed on balancing the teams with women and men. There were two women on the OTA teams in five of the six countries. Members could not have previous or ongoing contractual relationship with ADF.

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ADF has African field staff in five of the six countries visited. These ADF staff accompanied teams to the project sites and attended selected meetings between teams and project or national government personnel. OTA and ADF agreed at the outset that ADF staff would not be present at most meetings with project managers and participants in order to facilitate open discussions.

OTA team members included persons fluent in the languages used by local officials and project managers, except in one case where a secondary language understood by both the project leader and OTA team interviewer was used. In some instances, persons were hired to help translate interviews with project participants. Key information obtained from all interviews was cross checked and verified by additional sources.

During their final 3 days together in Africa, team members met to reach consensus on their findings. Together, teams made judgments concerning how well ADF projects were performing and how well the ADF program supports its projects. Finally, each member individually suggested ways ADF could improve its work and how Congress could encourage these improvements.

## Synthesis Meeting and Preparation of Report

Materials from the three teams were brought together during a Synthesis Meeting which included OTA staff and the three team leaders, Participants compared findings from the three areas, established the reliability of data in different parts of the worksheets, began to develop criteria for project rankings across regions, formed general conclusions about ADF's program, prepared congressional options, and began the report-drafting process. This led directly to the draft report and, after extensive outside review (app. F), including by ADF, to the final report.