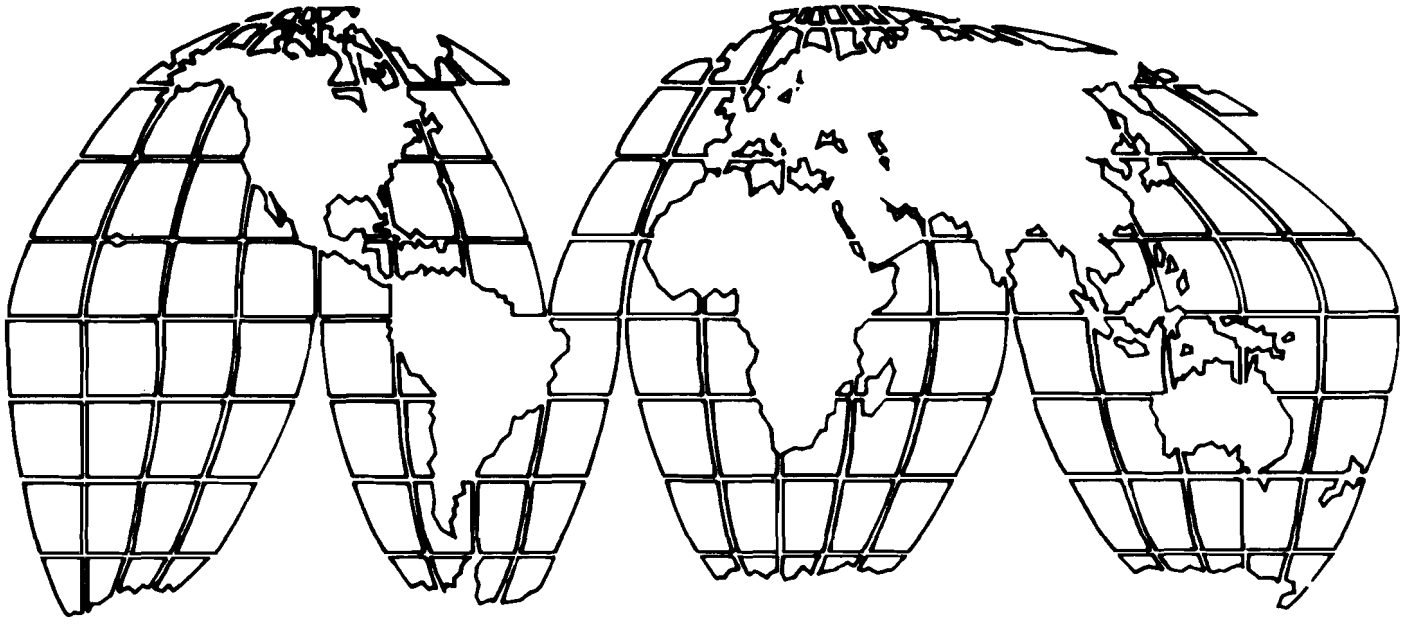
A.I.D. Evaluation Special Study No. 61

Agricultural Policy Analysis: A Manual for A.I.D. Agricultural and Rural Development Officers



February 1989

Agency for International Development (A.I.D.)

Washington, D.C. 20523

PN-AAX-215

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AGRICULTURAL POLICY ANALYSIS: A MANUAL FOR A.I.D. AGRICULTURAL AND RURAL DEVELOPMENT OFFICERS

A.I.D. EVALUATION SPECIAL STUDY NO. 61

by

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U.S. Agency for International Development

February 1989

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PREFACE

During the 1980s, agricultural policy reform has become an increasingly critical element in A.I.D.'s economic development efforts. To be successful, however, policy dialogue and reforms must be based on careful economic analysis and extensive host country collaboration. The Science and Technology Bureau's Agricultural Policy Analysis Project (APAP) has been A.I.D.'s primary vehicle for fostering such agricultural policy analysis, for assisting USAID Mission-host country negotiations, and for enhancing host country analytical capabilities.

The lessons learned from A.I.D.'s agricultural policy analysis experience are extremely important to USAID Missions and the larger development community. The Center for Development Information and Evaluation (CDIE) is pleased to join with the Bureau of Science and Technology in publishing two of APAP's major reports on this experience. The present report, "Agricultural Policy Analysis: A Manual for A.I.D. Agricultural and Rural Development Officers," is intended to provide practical, operational guidance for development officers in the field. As such, it provides a useful complement to CDIE's previous publication, "Agricultural Policy Analysis and Planning: A Summary of Two Recent Analyses of A.I.D.-Supported Projects Worldwide" (A.I.D. Evaluation Special Study No. 55).

CDIE hopes that the lessons learned from APAP will play a useful role in guiding future agricultural policy reform efforts to stimulate broadly based economic growth throughout the developing world.

FOREWORD

This report is one of a series of studies prepared by the Agricultural Policy Analysis Project (APAP), sponsored by the Office of Agriculture, Bureau for Science and Technology of the Agency for International Development (A.I.D.). The purpose of these studies is to gather and disseminate information about A.I.D.'s experience in the area of agricultural policy analysis and planning. Through interactions with policymakers, country analysts, and USAID Missions in Latin America and the Caribbean, Africa, the Near East, and Asia, APAP has identified and concentrated its technical resources on the following issues:

-- Developing agendas for an informed USAID Mission-host country dialogue on economic policies constraining progress in agriculture

-- Defining food-aid strategies and economic support programs that foster and support economic policy reform measures

-- Identifying input and output price reform programs that stimulate agricultural production and productivity

-- Fostering private sector participation in input supply and product marketing and redefining the role of parastatal institutions

-- Developing the indigenous capacity of host country institutions to provide the information and apply the analytical methods needed to analyze, formulate, and implement policies conducive to agricultural development

The present paper is intended to serve as a manual to assist agricultural development officers and other A.I.D. personnel in incorporating policy concerns into programming for the agricultural sector. As such, the paper provides more specific programming guidance to complement APAP's previously published summary analysis of A.I.D.-supported agricultural policy projects (A.I.D. Evaluation Special Study No. 55). One of the manual's central arguments is that effective policy programming requires that USAID Missions reach beyond the ministry of agriculture to pursue dialogue and reform activities involving policies that affect the agriculture sector, but over which the ministry may have little or no control. The manual is intentionally brief and makes extensive use of checklists to highlight key policy programming concerns. The manual may be read in its entirety or consulted selectively for guidance on policy matters as they arise.

This manual was the product of many persons' inspiration, dedication and guidance. Dr. James T. Riordan, former APAP Project Director, and Dr. Martin E. Abel, Senior International Economist, provided much of the initial ideas and writing. As this document evolved from the lessons of APAP, Jennifer Bremer-Fox, Ozwald P. Blarich, and Gerald Martin contributed under the guidance of my A.I.D. predecessors--Richard Suttor, Shirley Pryor, Ernesto Lucas, Phil Church.

We hope that this report, and other studies emerging from APAP's second phase, will provide useful information and analysis to all those involved in the continuing agricultural policy dialogue between A.I.D. and host country governments. We welcome comments, criticism, questions, and suggestions from our readers.

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Agency for International Development

GLOSSARY

A.I.D.	-	Agency for International Development
APAP	-	Agricultural Policy Analysis Project
CMSN	-	Military Council, Mauritania
CNAPES	-	National Commission for Assistance to Drought-Affected Populations, Mauritania
CNSA	-	National Committee for Food Security, Mauritania
CRAPES	-	Regional Committees for Assistance to Drought-Affected Populations, Mauritania
CSA	-	Food Security Commission, Mauritania
DA	-	Development Assistance
ESF	-	Economic Support Fund
IAPMP	-	Philippines Integrated Agricultural Production and Marketing project
PAAD	-	Project Assistance Approval Document
PID	-	Project Identification Document
PL 480	-	Public Law 480
PP	-	Project Paper
PROAG	-	Project Agreement
SEMs	-	Organizations for Public Education, Mauritania

1. INTRODUCTION

1.1 Objective of the Manual

In recent years, the international donor community has given greater attention to policy analysis, policy dialogue, and policy reform. The Agency for International Development (A.I.D.) has established policy reform as a key aspect of its development assistance programs. This manual is intended to assist agricultural development officers and other A.I.D. personnel in incorporating policy concerns into programming for the agriculture sector.

The role of an agricultural development officer has traditionally centered on management of the USAID Mission's agricultural sector portfolio. The host country ministry of agriculture and associated institutions are typically the main counterpart agencies. A central argument of this manual is that effective policy programming requires that the USAID Mission reach beyond the ministry of agriculture in pursuing dialogue and reform activities and consider policies over which the ministry may have little or no control.

This manual deals primarily with economic policies affecting agriculture. Such policies include macroeconomic policies, such as exchange rate, trade, and monetary and fiscal policies; agricultural product policies, such as price support and consumer food subsidy policies; and agricultural input policies, such as fertilizer subsidies and direct government intervention in pesticide production and distribution. To focus attention on economic policy is not to downplay the importance to agriculture of other policies--those governing research, investment, and land tenure, for example. It does, however, reflect a growing appreciation of the critical role that economic policy plays in shaping the performance of the agricultural sector and the central place of these issues in most policy dialogue and policy reform initiatives.

1.2 Organization of the Manual

This manual may be read in its entirety or consulted selectively for guidance on policy matters as they arise. The manual is intentionally brief and makes extensive use of checklists to highlight the special concerns raised by policy programming. The manual emphasizes the practical aspects of policy program-

ming rather than the substance of policy issues, which is beyond the scope of this manual. (For a discussion of these issues, see Agriculture Policy Analysis Guidelines [Abel 1986].)

This manual is organized as follows. Section 2 is an overview of A.I.D. policy programming. Section 3 offers methods for diagnosing key policy problems affecting agriculture, and Section 4 discusses strategies for developing a response to the policy problems identified and the policy dialogue. Sections 5 and 6 discuss the two main program options: projects to build analytic capacity and program assistance for policy reform. The appendixes include a draft scope of work, country-specific case studies, institutional sources of assistance, and a glossary of economic terms related to policy analysis. A short annotated bibliography of books on agricultural policy analysis is included at the end of the manual.

2. OVERVIEW OF AGRICULTURAL POLICY ISSUES IN A.I.D. DEVELOPMENT PROGRAMMING

The increased recognition being given to policies as determinants of agricultural development performance implies a need to reexamine A.I.D. assistance programming for agriculture. Four areas deserve special attention:

-- The impact of existing policies on A.I.D.'s assistance strategy for the agricultural sector, in particular on A.I.D.-supported agricultural projects

-- The need to engage the host government in a policy dialogue when policy issues are a serious constraint to sectoral development and when USAID Mission priorities and resources are consistent with the dialogue process

-- The use of program assistance to encourage and support the host government in making needed policy reforms

-- The need for project assistance to build analytic capability in order to support long-term improvement of agricultural policymaking

In a given country, action may be appropriate in some, all four, or none of these areas. Even when the existing set of policies poses a serious constraint to agricultural growth, it may not be feasible for A.I.D. to emphasize policy in its assistance program because of other constraints such as lack of infrastructure or appropriate technologies in the host country, limited A.I.D. resources, or broad programming considerations (e.g., U.S.-host government relations, other donor activities, and Mission staffing levels). Conversely, the absence of major

policy problems does not reduce the need to consider carefully the possible impact of policies on planned or ongoing projects; nor does it imply that there is no need to help the host government build its capacity to analyze alternative policies and implement reforms.

2.1 Agricultural Policy Issues in Project Assistance

Because project assistance constitutes A.I.D.'s main activity, policy assistance should support and be supported by projects. The renewed A.I.D. emphasis on policy has served to underscore this approach of linking policy and project assistance. In the design and evaluation of A.I.D. agricultural projects in the past, policy issues were generally treated as part of the external environment affecting project success rather than as factors to be dealt with in the management cycle. For example, in designing crop production projects, the negative consequences of artificially low price policies may have simply been acknowledged and left at that.

This approach is acceptable where policy barriers are relatively minor, but when policy distortions are significant, project designers should consider including in the project design measures that foster better policies. Such measures may include policy analysis and dialogue, conditionality, and financial support to meet costs associated with the necessary policy change. Even if such an approach is not adopted during project design, a consideration of policy impacts should be included in evaluation plans and in the terms of reference for evaluation teams. Policy problems are no longer relegated to the "assumptions" column of a project's logical framework, but rather have become an explicit concern in project assistance.

Although policies that reduce project effectiveness are generally a major source of concern, policies that artificially enhance project effectiveness can also present problems. For example, if the success of a project intended to encourage the production of a crop depends on the continuation of a subsidy, the efficacy of the project should be questioned.

Box 1 briefly reviews the main policies that are likely to hamper project implementation and reduce project impact. Project designers should determine whether such policies are being pursued and, if so, the extent to which they could endanger the success of the project.

Agricultural projects undertaken in an environment of substantial government intervention will almost always encounter policy-related barriers during project implementation. As changes occur in the social, political, or economic environment,

Box 1. Identifying Policy Problems During Project Design and Implementation

The following policy problems are among those most likely to cause problems during implementation of agricultural projects. Potential conflicts between project objectives and current macroeconomic and sectoral policies should be explored and, wherever possible, resolved before project approval.

Macroeconomic Policies

Fiscal management

-- Large budget deficits cast doubt on the government's ability to meet financial commitments on time and may interfere with the flow of A.I.D. funds to the implementing agency.

-- Government wage and employment policy may make it difficult to attract or retain high-quality personnel or to provide permanent staff for project-created programs and institutions.

Monetary policy

-- High inflation discourages long-term investment by the private sector, such as construction of irrigation systems, and may lead to overvaluation of the currency, which makes imports more attractive than local products and discourages exports.

-- Large public sector borrowing reduces the capital available to private investors and often drives up interest rates.

Trade and exchange rate policy

-- Overvalued exchange rates make local products less competitive with imports and less profitable as exports; they may also artificially reduce the cost of imported inputs (e.g., fertilizer).

-- Import licensing and other import controls may prevent the private sector from importing inputs needed for project-supported activities.

-- Tariffs and other taxes on imports and exports may make project-supported technologies less profitable.

-- Quotas may cut off key imported inputs or create a black market with artificially high prices.

-- Government monopolies on trade in project-related imports (e.g., irrigation pumps) or exports (e.g., coffee) may make the use of project-supported technologies less profitable or impossible for the average farmer.

Box 1. Identifying Policy Problems During Project Design and Implementation (cont.)

Economic regulation

-- Price controls may make project-promoted activities less profitable or prevent the smooth operation of agricultural markets and thereby impede the marketing of project-related products or reduce farmer access to inputs.

-- Margin controls on commercial trading activities tend to discourage local traders from carrying modern agricultural inputs and reduce the level of after-sales service and other support provided by private suppliers of agricultural equipment and commercial inputs.

-- Restrictions on internal trade, such as the prohibition of grain transport across provincial borders, impede the development of private markets for agricultural inputs and outputs and thereby discourage production and the use of new technology.

Sectoral and Subsectoral Policies

Output prices and marketing

-- Fixed prices for agricultural outputs that are below world prices reduce the profitability of new technologies.

-- Subsidized prices to consumers may lead to development of a black market if the government cannot supply the full amount demanded at the lower price; removal of a subsidy may reduce demand for a project-related product (e.g., milk).

-- Government monopolies on domestic trade tend to result in a poorly functioning market in which there is less demand for farmers' products and lower prices than would otherwise be the case.

-- Excessive regulations of domestic trade in key crops prevents the development of effective marketing channels and discourages production.

Input prices and marketing

-- Subsidies on inputs and credit are usually the result of shortages in their availability, especially to small farmers, and may result in black markets.

-- Government monopolies on input supply often result in reduced farmer access to inputs for new technologies.

the adverse effects of pervasive policies often worsen and raise problems not anticipated during project design. For example, an analysis indicating that a proposed cropping pattern is profitable despite government-regulated prices may be rendered invalid if the assumptions about future yields prove to be too optimistic or if world prices of inputs rise faster than designers had expected. Such situations require a flexible project design to allow for known policy problems as well as active monitoring of changes in relevant policy during project implementation.

When existing policies threaten the success of an A.I.D.-supported project, A.I.D. has the right and the responsibility to intervene. In such cases, several courses of action are possible:

-- Cancel the project or reduce the level of assistance.

-- Redesign the project so that the impact of the adverse policies is reduced.

-- Incorporate measures to encourage policy change.

-- Accept a lower rate of expected success.

-- Make continued project funding conditional on changes in policies.

In certain cases, several of these responses may be combined, for example, by building policy analysis and dialogue into the first phase of a project and making policy change a condition precedent to the second phase of activities. The design and implementation of projects or project components aimed at building the policy analysis capacity of the host country is dealt with below and discussed fully in Section 6.

2.2 The Policy Dialogue

Existing guidance on policy dialogue provides a thorough discussion of issues concerning the dialogue process (see, in particular, A.I.D.'s 1982 Policy Paper). This section is therefore limited to three topics of special concern to agricultural development officers:

-- A checklist for designing and implementing policy dialogue activities (Box 2)

-- The role of the agricultural development officer in the agricultural policy dialogue (Section 2.2.1)

-- Opportunities for dialogue on agricultural policies (Section 2.2.2)

Box 2. Checklist for Policy Dialogue Activities

Activity	Key Questions
Decision to Begin the Dialogue Process	Are agricultural policies a major constraint to agricultural development?
	Are macroeconomic policies a major constraint?
	Does the USAID Mission have adequate information to demonstrate to the host government that its policies are restricting the growth and development of the agricultural sector?
	Would dialogue on agricultural policy issues conflict with other U.S. Government interests?
	Is the host government actively engaged in or seriously examining policy reforms?
	Are existing policies clearly prejudicial to the interests of A.I.D. projects or programs?
Establishing Dialogue Content	Does A.I.D. have sufficient information on alternative policies and the impacts of these policies in order to engage in an informed dialogue?
	Is there consensus among key A.I.D. staff on the desired direction of policy change?
	Do A.I.D. views on desirable policy changes coincide with those of other donors?
	Do A.I.D. views coincide with those of key leaders in host government institutions?

Box 2. Checklist for Policy Dialogue Activities (cont.)

Activity	Key Questions
	Have other USAID Missions successfully carried out a dialogue on this policy issue and, if so, what can be learned about their experience?
Mobilizing Country Team Resources	What role should the USAID Mission Director and the U.S. Ambassador play in the dialogue?
	Can USAID Mission analysts provide sufficient support for the dialogue, including analysis of alternative reforms?
	If not, are financial resources available to supplement Mission personnel?
	What other A.I.D. analytic resources can be applied to supplement Mission resources --project staff, centrally funded projects, regional support offices?
	Are program resources available to support the policy dialogue, for example, PL 480, Development Assistance, or Economic Support Funds for program assistance?
Identifying Institutional Actors	Which host government institutions are involved in setting policy in this area, and what are their respective positions on reform?
	Which institutions provide supporting information?
	Which institutions are currently involved in implementing the policies?

Two related topics are discussed in Section 4: USAID Mission management of policy analysis and monitoring of policy change.

2.2.1 The Role of the Agricultural Development Officer in the Policy Dialogue

The policy dialogue usually focuses on highly sensitive issues such as food prices, input subsidies, the role of the state in agricultural markets, and prices for major export commodities. Consequently, the dialogue typically must be carried out with the central ministries, such as the ministries of finance, trade, investment, and planning, if it is to go beyond an exchange of views. The sectoral ministries, such as agriculture, rural development, agrarian reform, and irrigation, must also be involved in the dialogue, but their role in setting major policies that affect the national economy is limited in most countries. Therefore, they are not the appropriate focus for the dialogue.

USAID Mission organization for the policy dialogue must parallel that of the host government. The Mission Director or the U.S. Ambassador must take the lead in discussions with senior host government personnel, with active support provided by the program officer, program economist, and other Mission staff.

As a general rule, the role of the agricultural development officer in the policy dialogue parallels that of ministry of agriculture personnel. The agricultural development officer and the staff of the agricultural office have three responsibilities:

-- To monitor policy developments affecting the sector as the basis for identifying policy problems requiring Mission attention

-- To provide technical support for the dialogue in the form of data on agricultural sector performance, analysis of current policies, formulation of alternative reform packages, and estimation of the impact of alternative policies

-- To coordinate with sectoral counterpart institutions, such as the ministry of agriculture, to support their involvement in the dialogue and to ensure that conflict with ongoing projects and programs is minimized.

A number of tools are available to help the agricultural development officer and his or her staff in fulfilling these functions. Box 3 presents the principal characteristics of several useful mechanisms available for supporting and stimulating the dialogue.

2.2.2 Opportunities for Policy Dialogue

Policy dialogue can be a resource-intensive activity, particularly when it is not linked to the programming of funds for the agricultural sector but must instead compete with the project portfolio for staff and other resources. In a time of increasing resource scarcity, it is critical to take advantage of opportunities in the A.I.D. programming cycle to further the policy dialogue. While each portfolio has its own constraints and opportunities, four points in the programming cycle typically offer the best openings for A.I.D. policy discussions:

-- At the time of negotiation of food aid and Economic Support Fund programming

-- During sector studies or other major reviews of the A.I.D. portfolio

-- During the design of projects in subsectors in which policy problems are severe

-- During evaluation of projects adversely affected by existing policies

Opportunities for policy dialogue associated with Public Law (PL) 480 food aid programming deserve special attention. In the past, food aid programs have not always been fully integrated into the agricultural portfolio, particularly when the USAID Mission organization had placed PL 480 food aid management in another program, such as voluntary assistance. Consequently, USAID Missions may not have taken advantage of the opportunities presented by negotiation of self-help measures and by the additional flexibility inherent in food aid programming.

This situation is changing rapidly as Missions seek innovative ways to apply food aid resources to supplement other funds and support policy reform.

-- Negotiation of self-help measures is often the only instance when the host government is formally required to discuss policy questions with the USAID Mission.

Box 3. Tools for Stimulating Policy Dialogue

Tool	Principal Characteristics
Presidential Agricultural Task Force	High-visibility means of focusing on policy issues and judging host country interest in policy concerns.
Policy Seminars, Workshops, and Conferences	Can be directed at policymakers and analysts of different levels of seniority. Forum for pointing out costs of policies and alternatives. Means of generating demand for analysis.
Joint Program/ Agricultural Sector Assessment	More focused on policy than the Presidential Agricultural Task Force. Activity engages host country in review of policy environment--high visibility.
Policy Inventory and Diagnosis	A joint in-depth examination of policies affecting agricultural development. Flexible in scope and content. Means of identifying specific policies for dialogue, analysis, and reform.
Institutional Mapping of Policy Environment	May be used as an internal study aid for developing strategy for policy dialogue. Means of identifying critical institutions and actors for policy projects.
Specific Policy Analyses	Means of enhancing the quality of policy dialogue by filling information gaps discovered during policy inventory. Can serve as basis of policy project design.
Technical Assistance to Project Design and Evaluation	Means of building policy analysis and dialogue into projects. Evaluates project feasibility and progress in terms of major agricultural policy constraints.

-- Innovations in the PL 480 food aid legislation such as 206 programs have created opportunities to use local currency generations to support policy reform, particularly in countries facing chronic deficits.

-- Title III funds can be used to support policy reforms directly or indirectly, by financing analysis, helping to meet the local costs of reform-oriented projects, and providing budget support to the host government.

In some cases, the need to coordinate food aid among donors has served as the basis for closer cooperation on the policy front as well. The Mali Cereals Market Restructuring project is an example of a multidonor program that attempts to use food aid to accelerate reform.

2.3 Agricultural Policy Issues in Program Assistance

Just as the need for policy change is receiving increasing attention, program or sector assistance is coming back into use as a means of influencing such change. The World Bank, through its structural adjustment loan program, has led a return to the use of nonproject loans for policy purposes. A.I.D. is also expanding the use of program loans and grants. Appendix G discusses one such initiative underway in Niger, where an Economic Support Fund (ESF) grant is conditioned on changes in major agricultural policies and institutions. Monitoring these changes is key to program success, providing the basis for A.I.D. to determine whether satisfactory progress has been made according to agreed-on performance indicators.

Program assistance funds typically provide foreign exchange to help balance a country's external accounts or provide budgetary support to the government for ongoing programs of interest to the donor. The uses of the funds are secondary to the program's purpose, however, which is to promote policy reform. Compared with project aid, program assistance has several advantages as a means of supporting reform:

-- Implementation of program assistance generally requires few conditions, allowing most of the leverage to be focused on policy reform. This contrasts with the typical development project, for which the host government must supply resources and often make other concessions on how the project should be designed.

-- As a rule, program assistance makes fewer demands on USAID Mission management time than does project assistance. (PL 480 assistance may be an important exception

to this rule.) Consequently, more attention can be paid to policy analysis and dialogue than would otherwise be the case.

-- When program assistance is conditioned on policy reform, a direct relationship can be established between resource transfers and policy change. With project assistance, however, it is usually difficult to cancel activities midway through implementation.

-- Program assistance gives the host government more flexibility to use funds for its own priorities. Any disruption in such flexibility will provide more effective leverage than cancellation of projects that may or may not have a high priority for the government.

-- The visibility of program assistance is controllable. High visibility can be created to increase the amount of leverage inherent in a given loan or grant. (Use of a Presidential Agricultural Task Force as the initial stage in stimulating policy dialogue is one high-visibility tool, for example.) Program assistance can also remain invisible, when linkage to donor pressure would be counterproductive or otherwise undesirable.

At the same time, providing program assistance to induce policy reform raises a number of issues for A.I.D.:

-- If program assistance is contingent on policy reform, appropriate criteria must be specified for measuring progress. The selection of these criteria must be based on careful analysis. If unattainable or inappropriate criteria are selected, the policy reform process will fail.

-- Some types of reform impose political or budgetary costs on the government. The removal of tariffs on agricultural products, for example, may lower government revenues, which may then need to be replaced by other sources.

-- The level of program assistance must be balanced with the degree of change required and with other donor assistance. Even if a country program is too small to effect a large-scale policy change, a carefully targeted program of sector assistance can be designed to achieve more limited objectives, often in conjunction with other donor actions, such as a World Bank structural adjustment program aimed at broader reforms.

-- The targets of program assistance need to be determined according to the kinds of policy reform desired. Program assistance may direct budgetary support to agricultural agencies, to balance of payments requirements of the national government, or to the private sector.

-- The host government may need more than technical assistance to implement policy reform. For example, the privatization of a parastatal may require that credit and managerial assistance be provided to private entrepreneurs to help them get established.

These issues, and other design and implementation considerations, are discussed further in Section 5.

2.4 Projects With a Policy Focus

Projects to increase host country capabilities for data collection, economic analysis, and agricultural planning have always had a place in the agricultural portfolio. The renewed emphasis on policy has given added impetus to such projects (which will be referred to here as policy projects), but has not resulted in major changes in the projects themselves. The findings of a review of A.I.D.'s experience with policy projects carried out over the past 10 years are presented in detail in Section 5, but three points deserve emphasis here:

-- Policy projects can provide better information on policy issues of immediate concern and can improve host country analytic capability, but they cannot always do both effectively. Pressure to produce useful analysis in the short run may conflict with the long-term requirements for institutional development.

-- Policy projects are rarely an effective tool to further a specific reform agenda, particularly in the absence of other, more powerful support for change such as program grants or loans.

-- The central role of institutions other than the ministry of agriculture in making agricultural policy suggests that the ministry of agriculture may not be the best focal point for capacity-building projects. Consideration should be given to directing assistance instead to the central ministries (especially the ministries of planning and finance), local universities and research centers, and private sector organizations such as producer associations, all of which may be more likely to attract and retain skilled analytic personnel and to use their skills effectively for policy analysis.

Agricultural policy projects share many similarities with other A.I.D. projects aimed at building institutional capacity for research, data collection, and analysis. A.I.D. experience with such projects is discussed extensively in other guidance, including A.I.D. Policy Papers on institution building and the review of A.I.D. experience with agricultural research projects.

3. DIAGNOSIS OF KEY POLICY PROBLEMS

USAID Missions are increasingly being called upon to engage in policy dialogue with host country governments. In most situations, a large number of policy-related problems exist, but only a few can be effectively addressed through the dialogue. This section presents a methodology--the policy inventory and diagnosis--that can help identify policy constraints to agricultural development and set priorities for dialogue and other actions.

Appendix A provides a generic scope of work for the design and conduct of a policy inventory; Appendix B illustrates the format developed for a recent policy inventory and diagnosis conducted by A.I.D. and the Government of El Salvador.

3.1 Policy Inventory and Diagnosis Methodology

A policy inventory typically has four phases. The first phase identifies the content and objectives of major policies through an examination of secondary sources and interviews with government officials, leaders of producer associations, and selected individual producers. The second phase entails a qualitative (or, if possible, quantitative) assessment of these policies, using economic efficiency and social welfare criteria. The third phase consists of reviews of the policy assessment by government officials, A.I.D. representatives, analysts, and other interested parties. In the final phase, a subset of important policies is selected as the subject of more intensive dialogue and analysis.

A policy inventory and diagnosis examines policies at three levels:

-- Macroeconomic: Policies that affect the way in which the entire economy performs. The exchange rate policy, for instance, affects prices that agricultural producers, as well as industrial manufacturers, pay for imported inputs.

-- Agricultural sector: Policies that affect the dynamics of the entire agricultural system. For example, policies that determine taxation of agricultural exports or imports are in this category.

-- Agricultural subsector: Policies designed to affect a particular product or set of products, such as price supports for rice production.

Once policies are identified and categorized according to the three levels, the next step is to assess their individual and cumulative effect on the agricultural sector. Each policy is assessed in terms of its impact on selected economic or social performance criteria. These criteria may be stated government objectives, economic performance indicators, social indicators, or some combination of these factors. The criteria must be selected on the basis of local conditions, through consultation with key host country individuals.

The determination of the criteria for assessing policies is a critical step in the diagnosis process. The criteria are country specific, but will generally include the impact on production and on farmer income, consumers, trade, and government revenue, as well as special concerns such as more equitable income distribution, greater producer incentives, and increased food consumption.

To be useful, the inventory must rank the policies with respect to their relative impact on the criteria selected. One simple method for accomplishing this is to develop a "policy scorecard" that expresses the impact as a number from minus two (very negative) to plus two (very positive). The ratings may be informed judgments made by the analysts conducting the inventory, or if resources permit, they may be estimated using a formal sectoral model or other quantitative approach. In the short example shown in Table 1, a dual exchange rate has the highest total negative effect, while subsidized fertilizer prices produce the highest positive net effect given the set of criteria. Generally, this policy set has a positive bias toward raising food consumption but a negative effect on income distribution and producer incentives.

Table 1 helps to identify conflicting interests among different participants in the policy process. As a general rule, the effects of most important policies are not unidirectional; therefore, efforts to reform them tend to arouse controversy. The policy inventory and diagnosis helps to identify those who stand to gain (consumers in this case) or lose (producers) from changes in particular policies.

A real strength of the assessment approach is its capacity to highlight areas of divergence and agreement between A.I.D. and the host government with respect to policy issues and their

impact. As the results of the inventory are reviewed, influential policymakers within the government and the USAID Mission have an opportunity to explore and clarify differing viewpoints.

The outputs and uses of a policy inventory and diagnosis vary considerably depending on the level of effort expended. However, at a minimum, an inventory should provide the following products:

-- A list of major policies affecting agricultural development

-- An assessment of the impact of each policy on the agricultural sector in general

Table 1. Example of Qualitative Assessment of Policy Impacts

Policy	Selected Criteria: Equity of Income Distribution	Producer Incentives	Food Consumption	Total[a]
Macroeconomic				
Dual Exchange Rate	-1	-2	+1	(-2)
Subsidized Interest Rate for Agriculture	-1	+1	+1	(+1)
Sectoral				
Subsidized Fertilizer Prices	-1	+2	+1	(+2)
Subsectoral				
Taxation of Export Crops	+1	-2	0	(-1)
Control of Retail Prices	+1	-2	+2	(+1)
Total[a]	(-1)	(-3)	(+5)	(+1)

Note: Policy impacts are rated on a scale of -2 (very negative) to +2 (very positive).

[a]Assumes all three criteria have approximately equal importance.

-- An assessment of the cumulative impact of different policies at macro, sectoral, and subsectoral levels (e.g., does this policy set have a net positive or negative impact on farmer income?)

-- The identification of a subset of policies that may need further analysis and consideration of reform measures because of its strategic importance or its effect on the economy

-- A basis for informed policy dialogue with the host government

The cost of implementing a policy inventory and diagnosis depends on the extent of the analysis of the policy set and individual policies to be undertaken as part of the analysis. A policy diagnosis without substantial analysis should require 2 to 3 person-months of work, while a more extensive analysis with quantitative assessment of impacts may require 10 to 15 person-months.

3.2 Identification of Key Participants in Policymaking and Implementation

The process of problem identification and diagnosis described in the previous section cannot take place without an awareness of the individuals and institutions associated with the policy issue.

This section presents a framework for mapping a country's institutional arrangements for agricultural policymaking. These arrangements are typically complex, highly specific to the policy issues in question, and fluid over time. Even in a formal, highly structured policy environment, such as that in the United States, the interrelationships may be difficult to trace.

Setting U.S. sugar price policy, for instance, involves Congressional representatives from sugar states, industry lobbyists, and U.S. Department of Agriculture (USDA) officials in a dynamic and complex process. Informal arrangements and alliances often dominate the process (e.g., Senators from sugar states bargaining with other Senators on seemingly unrelated issues).

Once an issue has been identified, it may be useful to develop a "map" of the institutions involved in policymaking and implementation. Although this map cannot capture the dynamics of institutional relationships, it can help in structuring the dialogue and understanding the host government perspective. Table 2 presents a map showing the institutions involved in grain price policy in Mauritania; the table is based on the more complete discussion of the subject in Appendix C. This kind of map is useful for providing the following information:

Table 2. Mapping of the Institutions Involved in Mauritanian Grain Price Policy

Institution	Composition	Role	Key Actors
Military Council (CMSN)	Military leaders	Governs country; makes final decisions on grain prices	President
National Committee for Security (CNSA)	Ministries of Rural Development, Finance and Commerce, Planning; Food Security Commission; parastatals; regional representatives	Analyzes prices and recommends grain prices	Members of the technical committee
Food Security Commission (CSA)	Overlaps CNSA	Manages food-aid distribution and Government purchase of local grains	Commissaire and governing council from CNSA and CNAPES
International Donors	IMF, World Bank, bilateral donors, and so on	Major suppliers of imported grain and loan funds	Consultative group
National Commission for Assistance to Drought-Affected Populations (CNAPES)	Overlaps CNSA, but is broader (includes SEMs)	Oversees food security, including sales and distribution of food aid	Chairman, who is permanent secretary of CMSN
Organizations for Public Education of the Masses (SEMs)	Local political authorities	Communicate local concerns to authorities; identify recipients of free food	Members serving with CNAPES
Ministry of Rural Development		Provides price and analytical data; member of CNSA, CSA, CNAPES	Director of Agriculture
Ministry of Finance and Commerce		Controls price of imported rice	Minister
Regional Governors		Theoretical authority to set local rice prices after farmgate; represent regional interests	Governors

1. A detailed description of the policy of interest--in this case, grain price policy or, more precisely, policies for imported grain, local grain, and rice

2. Identification of all formally legislated or constituted institutions connected with policy formulation, implementation, or enforcement

3. A description of the composition of each institution, as well as its legislated, mandated, or actual role regarding the policy, and identification of the key individuals in the institution

4. An appraisal of how the policy process actually works, with descriptions of informal arrangements and alliances to the extent they can be identified

The Mauritania example underscores four features common to many policy situations:

1. Many different institutions share responsibility for setting policy.

2. The institutions that set policies are not necessarily the ones that implement them.

3. The formal structure is only part of the story: the influence of key individuals cannot be fully explained by their position in the formal decision-making process.

4. In general, the ministry of agriculture's role is primarily to provide information to support decision-making and to implement chosen policies; the ministry has relatively little influence on the decision-making process.

Mapping formal participation in the policy environment imposes order on a confusing and complex situation. The Mauritania case provides several insights that have relevance for dialogue and policy reform in general:

-- Policy environments are dynamic and evolutionary in character. Note the significant roles of new commissions and committees (e.g., CNSA, CNAPES, SEMs) created to handle drought-related problems.

-- Making policy, implementing policy, and enforcing policy are often separate functions. In Mauritania, a national grain price policy that cannot be enforced by local authorities is in reality no policy.

-- Formal institutions (e.g., ministries) may be insignificant, or influential only as a function of their membership in various policy bodies.

-- Elaborate organizational structures may exist to ratify and validate policy decisions made by political figures and extranational institutions.

-- Institutions and individuals wax and wane in influence, but these changes are difficult for outsiders to perceive, much less to interpret.

Box 4 provides a checklist for developing a map of the institutional arrangements associated with a particular policy.

Box 4. Checklist for Developing a Map of Policy Institutions

__ Examine the policy functions of each institution. Does it supply policymaking information? Does it analyze data and advise on policy decisions? Does it select policy options and promulgate them, or does it implement or enforce policies?

__ Examine the various levels of influence that an institution exerts, from the broad national influence of the ministry of finance to the sector-level influence of the ministry of agriculture down to the crop-specific influence of a rice growers association.

__ Examine the issues on which institutional interests conflict and coincide, including issues other than the one being considered.

__ Consider the possible hidden agendas of the principal decision-makers and their capacity to influence other decision-makers.

__ Consider who stands to benefit or to be harmed by a particular decision. Such persons may not be part of the formal policymaking structure, but they may be a significant force.

__ Within each institution, identify the policy functions performed by managers, staff, and others. Low- to mid-level officials can sometimes have an important role in determining how information circulates and how decisions are (or are not) implemented.

4. A.I.D. RESPONSE I: STRATEGIES

4.1 Project and Nonproject Strategies To Promote Reform

In an overall assistance strategy for agriculture, policy can be viewed as a target for A.I.D. assistance or as a constraint within which other assistance must operate. In either case, USAID Mission strategy must address the following questions:

-- Are current government policies a major constraint to agricultural development?

-- Which policies appear to present the most serious barriers to accelerated agricultural development?

-- Is A.I.D. action appropriate to promote change in these policy areas?

-- If action is appropriate, what approach should A.I.D. take to promote change?

-- How does A.I.D. policy assistance affect other elements of the assistance program and other U.S. interests?

The objective of this section is to present guidance on using combinations of A.I.D.'s development resources to foster appropriate policy reforms. This guidance assumes that the USAID Mission has developed an adequate knowledge base concerning agricultural policy by undertaking activities such as the following:

-- A policy inventory and diagnosis to determine whether policy is a major constraint to agricultural development and to identify priority problems

-- Institutional mapping of participants in the policy process to identify appropriate points of intervention and the need for improved analytic capacity

-- Policy analyses of key issues to support the policy dialogue and the policy reform process in general

The question of whether a given policy is damaging to the economy is quite separate from the question of whether A.I.D. should do anything about it. It may not be desirable for A.I.D. to take action in the policy area because of the following:

-- Host government reluctance to enter into a policy dialogue

-- Insufficient USAID Mission resources (financial or personnel) to support a dialogue or an agricultural policy project

-- An adequate dialogue underway with other donors

-- Overriding U.S. or A.I.D. policy concerns

If, however, A.I.D. determines that it should play an active role in influencing policy, an integrated program for doing so should be formulated. In many cases, such a program will include a combination of project assistance and program support.

The strategy chosen to promote improvement in agricultural policies depends on the resources available to the Mission and the priority assigned to policy reform in the near term. A wide range of tactics is available to support the strategy chosen, from informal dialogue with host government officials to a major commitment of funds against policy reforms negotiated in detail. The principal tools available to promote reform, in order of increasing involvement, are the following:

-- Informal dialogue, carried out, for example, during evaluation of an ongoing project adversely affected by existing policies

-- Formal dialogue, backed up by policy analysis to clarify issues and alternatives and carried out in the context of government-to-government discussions, such as the negotiation of PL 480 self-help measures

-- Project assistance to policy analysis units in the host government, directed at a specific analytic agenda

-- Project assistance to support particular reforms, such as management assistance to reorganization of a state marketing organization

-- Program assistance, providing financial resources in direct or indirect support of particular policy reforms

In a given situation, an appropriate strategy may involve several tactics used in combination, such as formal dialogue and project assistance for policy analysis to help the government formulate a reform program, followed up with program assistance to support implementation. Moreover, there is not a one-to-one correspondence between tactic and A.I.D. funding source. Policy analysis may be funded from operating funds, Program Development and Support (PD&S) funds, project funds, or program funds. Program assistance may be packaged as a project using Development

Assistance or Economic Support Funds, programmed from PL 480 reflows, or funded directly using PL 480 or other nonproject resources.

The remainder of this section examines three topics related to implementation of A.I.D.'s policy change strategy: the selection of program or project assistance modes to support reform, management of policy analysis, and monitoring of policy change.

4.2 Selecting Project or Program Assistance

Because program assistance has been used relatively rarely in A.I.D. agricultural programs, a quick review of the key differences between the project and program assistance modes may be useful in showing when one is more appropriate than the other. As shown in Table 3, the main difference between the two is the link between fund disbursement and host government action. In a project, the link is direct: project funds finance a specific program of action, be it research on cowpeas, construction of rural roads, or policy analysis. In a program, the link is indirect: resources are provided on condition that the government undertake certain actions, the direct cost of which may have little or no connection to program funding.

In some cases, it may be preferable to specify the use of the funds, at least in general terms if not in detail. For example, the Mali Cereal Market Restructuring project (a program, despite its name) established a multidonor committee that, together with the Government, determines how food aid reflows can best be programmed to support the reform. In other cases, however, the use of the funds may be left wholly to the host government's discretion.

As this difference suggests, the primary consideration in deciding whether to use program assistance is the depth of the government's commitment to the reform. The program mode should be used to assist a government in making changes that its leaders believe are necessary. The program funds merely make it easier for them to do so by covering costs associated with the reform or rewarding movement in the right direction.

If the government is not yet ready to make such a commitment, then A.I.D. assistance to policy reform must use the more limited and easily controlled project mode. Under this mode, A.I.D. can finance specific actions that have been mutually agreed on to further the reform, such as the restructuring of a parastatal. Project funds can also underwrite studies or technical assistance to help the government identify other appropriate actions.

Table 3. Key Differences Between the Project and Program Assistance Modes

Item	Project Mode	Program Mode
Fund Use	Specified in detail based on specific activities	Not usually specified in detail; sometimes not specified at all (cash transfer)
Fund Source	DA accounts or ESF, PL 480 reflows (local costs)	DA accounts or ESF, PL 480 commodities or reflows, other sources
Documentation	PID, Project Paper, Project Agreement	PAAD, Program Agreement (PID, Project Paper also used)
Outputs	Specific program of activities	Policy changes or other host government actions
Conditions Precedent and Covenants	Restricted to minimum necessary to protect against misuse of funds and to encourage rapid implementation; often fully satisfied in first year of project	Closely linked to disbursement throughout the program; generally phased over the life of the program
Disbursement	As needed to finance planned program of activities	Conditional on government implementation of agreed-on reforms and other actions

Note: DA = Development Assistance, ESF = Economic Support Fund, PID = Project Identification Document, PAAD = Program Assistance Approval Document.

4.3 Managing Policy Analysis

Policy analysis is the application of analytic tools, primarily but not exclusively economic techniques, to the design and evaluation of alternative policy measures. As this definition suggests, the techniques and analytic approaches used are as varied as the problems to be addressed; there is no right way to conduct policy analysis. Nevertheless, a policy analysis exercise should include certain general elements if it is to be complete and useful for policymakers. A.I.D. is more likely to get a study that serves its immediate needs if the scope of work specifies the following four elements:

1. Formulation of the economic problem in the current political-economic climate. This requires identifying the objectives underlying the relevant government policies and the nature of the problems that existing policies are designed to overcome.

2. Identification and analysis of the direct and indirect economic implications of current policies and alternative approaches for dealing with the problems specified.

3. Evaluation of the budgetary implications of alternative policies in terms of both expenditures and revenues for each alternative.

4. Evaluation of the practicality of alternative policies in terms of the legal structure, institutions, information, management systems, and personnel available to implement them.

Although in particular instances one or another concern may be paramount, policy analysis should usually address all four of these concerns to the extent feasible given available resources. For example, an examination of input subsidies may be motivated by the government's wish to cut costs, but the analysis of alternatives should determine their impact on input use, production, and farmer income, at a minimum, as well as on government expenditures.

These four points can serve as the basis for developing the scope of work for individual studies. In refining the scope to meet the needs at hand and in supervising the implementation of the study, the following points should also be kept in mind:

-- Clear, precise definition of the problem is key to producing useful analysis. To continue the example mentioned above, is the government trying to encourage use of modern inputs, to compensate farmers for low output prices, or to expand sales of government-produced inputs?

-- The problem should determine the nature of the analytic tools used, not vice versa.

-- More sophisticated analytic tools do not necessarily produce better results than do simple techniques, particularly when reliable information is scarce and the need is for clear exposition of the issues in a form that helps, rather than dazzles, decision-makers.

-- Close collaboration with host country government or nongovernment analysts is extremely valuable in establishing a basis for future discussions and follow-on work and also serves to reduce political tensions associated with analysis of sensitive issues.

-- Whenever possible, the analytic output should be presented in terms of a range of possible outcomes, not a single estimate, especially when hard data are scarce or participants in the discussion disagree on key variables (e.g., the size of the nutritionally at-risk population to be served by food subsidies).

-- The policy environment is not static; if possible, the analysis should produce analytic formats that USAID Mission personnel can modify to reflect new alternatives or update as circumstances change (e.g., a spreadsheet model of domestic marketing margins, which can be used to explore how various tariff and exchange rate combinations would affect the relative price and profitability of domestic and imported grain).

In all cases, USAID Mission personnel should be assigned to work closely with the analytic team even when none of the personnel available have strong analytical skills. Close Mission involvement helps ensure that USAID Mission concerns are adequately reflected in the final report and that a basis exists for continued discussion and analysis after the initial study is completed.

4.4 Monitoring Policy Change

Whatever the priority of policy reform in the USAID Mission's agenda for agriculture, it is extremely useful to monitor the policy developments that affect the sector. The agricultural portfolio may be heavily concentrated on cereal research, for example, but this program could be seriously affected by a change in government policy on cereal marketing or imports.

As staff levels shrink, it becomes increasingly difficult to maintain basic monitoring systems for policy or other uses, regardless of how useful these systems may be. Consequently, it is critical that available resources be used as efficiently and effectively as possible. Two methods can help achieve this aim.

1. The policy inventory described in Section 3 can serve as the basis for a low-resource-cost monitoring system. Once the initial work of identifying and organizing existing policies has been completed, relatively little staff time should be required to update the inventory as policies change. The tabular format described in Appendix B provides an excellent structure for organizing this activity, particularly if the table is maintained on a word processor so that changes can be entered quickly.

2. A record of price levels over time requires very little staff time to maintain but provides an excellent picture of the overall policy environment for agriculture. The record should include official prices for the main products and inputs, domestic market prices for consumers and producers, and, if possible, international prices at the port. The relative position of these prices and their movements over time can tell the experienced analyst a great deal about the policy environment, including both price and nonprice policies. Even if prices can be gathered only semiannually or annually, these data will be extremely useful for any analytic work and will markedly increase the output of short-term teams asked to examine policy questions.

5. A.I.D. RESPONSE II: PROJECTS TO BUILD POLICY ANALYSIS CAPABILITY AND PROMOTE REFORM

A.I.D. has had significant experience with projects to increase host country agricultural policy analysis capability. In some cases projects have been designed and implemented solely to create or strengthen agricultural planning and policy analysis units; at other times, capacity building has been part of a broader agenda. This section reviews the lessons learned from an evaluation of A.I.D. agricultural planning and policy projects from 1970 to the present (see APAP 1984; Abt Associates 1982; and Tilney and Riordan 1988). The objective of this section is to give guidance on designing projects or project components that build policy analysis capacity, based on synthesis of the major project design and implementation findings from these evaluations. The principles discussed in this section are also reflected in case studies of experience in the Philippines and Botswana, presented in Appendixes E and F.

5.1 Project Design Considerations

Project goals and activities should be based on clearly identified constraints and problems in the agricultural policy environment.

> Lesson 1
>
> The project aims should not be overly ambitious and should balance policy reform with institutional development.

No single project can bring about a transformation of a nation's agricultural policies, particularly if the focus is on analysis and training rather than on more direct support for reform (e.g., cash transfers). The lack of information is only one barrier to policy change; it is rarely the binding constraint.

Moreover, attempts to address a broad and high-visibility policy reform agenda may actually conflict with development of analytic capacity within host country analytic institutions. Technical advisers faced with a heavy, short-term reform agenda tend to spend too much time on analysis and too little on training local staff. A policy unit in the early stages of its development needs to build up its staff and strengthen its reputation and capability gradually; otherwise both may be damaged by being thrust too rapidly into the heat of high-level policy debates.

> Lesson 2
>
> The ministry of agriculture may not always be the best institutional location for a policy analysis unit.

Most projects designed to strengthen agricultural policy analysis capability have focused on developing a planning and analysis unit in the ministry of agriculture. Although the agricultural ministry clearly has a need for an analytic capability, other ministries typically play a much larger role in analyzing policies, particularly such policies as those affecting food and export crop pricing, which are important to a wide range of agencies. In such cases, consideration should be

given to building the capacity of one of the central ministries, such as the ministry of planning, to analyze agricultural issues, particularly if there is no appropriate unit in the ministry of agriculture.

Even within the ministry of agriculture, project location is a key concern. Designers often face a difficult choice: whether to strengthen an existing unit that has a statistical, research, or project monitoring focus but little or no role in policy, or to attempt to involve advisers at more senior levels of the ministry, where it may be difficult to identify a permanent institutional base.

Experience indicates that low government salaries make it difficult to retain trained analysts after the project is over. One solution to this problem is to emphasize the role of non-governmental institutions, such as universities, where staff turnover is lower and opportunities for consulting can make the total salary package attractive to skilled analysts.

Lesson 3

Technical advisers should assume a cooperative, advisory role rather than dominate the policy analysis activities of a project.

Lack of specificity in the roles of expatriate advisers has been a critical problem in past projects. For example, the evaluation points to greater success with advisers who train counterparts than with expatriates who advise decision-makers (see, for example, the Botswana case study in Appendix F). The most critical factor for project success is a qualified project team that works closely with host country personnel.

Lesson 4

Recurrent costs must receive serious consideration at the time of initial design.

The extreme limits on developing country government funds to expand staff and support ongoing programs make it imperative to design analytic activities consistent with a modest expenditure of funds. Governments should not be encouraged to establish institutions on a scale they cannot sustain.

The evaluation of A.I.D. experience with capacity-building projects for agricultural policy found that insufficient host country staff and resources was a serious problem even during project implementation. In fact, lack of host government support was the most commonly identified constraint to project success. This finding suggests that insufficient attention has been given during project design and implementation to ensuring that decision-makers value and are willing to fund better analysis. If host government support does not exist before the project begins and is not developed during the project, then it is almost certain that the analytic capacity will not be institutionalized. Thus, a continuing lack of host government resources is strong evidence that the time is not right for capacity building, and consideration should be given to cancelling or scaling back the project.

5.2 Project Implementation

> Lesson 5
>
> Separate technical from administrative duties.

Situations in which the chief of party is both project manager and technical expert are to be avoided. Too much of the adviser's valuable time must then be spent on administrative issues, to the detriment of technical objectives. Thus it is recommended that an on-site administrative assistant be assigned to support a chief of party who has sound technical policy credentials.

> Lesson 6
>
> Emphasize efforts to achieve interagency cooperation.

Lack of communication among project agencies has been a major constraint in the past. Policy issues cut across many institutions, often exacerbating long-standing "turf" conflicts. As a means of avoiding this problem, formal working groups representing all principal agencies have been useful in some cases (e.g., Sri Lanka). Careful institutional mapping can also help in managing this type of problem, by identifying the institutions likely to be involved in or affected by implementation of a particular policy reform.

Lesson 7

Provide ample training to meet technical and institutional needs.

The evaluation found that time requirements for analytical training are consistently underestimated. Often there are not enough staff with the minimum skills required for advanced degree programs. More on-the-job training should be built into projects, and graduate students should perform at least some of the research on their thesis in their home country. Quality of personnel is much more important than number, so training should be concentrated on analytic staff if resources are limited.

Long-term and short-term training serve different needs, and if possible, ample amounts of both should be included in the project design. The need to send the most promising staff members for long-term training demonstrates the conflict between long-term capacity building and short-term analytic outputs, as well as the general advisability of stressing the long-term perspective when using the project mode of assistance. Analysts must be given as much opportunity as possible to apply their academic skills to specific policy problems once they return from training, because formal training in developing countries tends to be stronger on theory than on application. Managers may want and need formal training in analytic techniques to enhance their professional stature, but practical assistance in managing the unit is equally important for their long-term effectiveness.

Lesson 8

Provide for continuity and flexible response.

Policy analysis requires the ability to respond flexibly to the changing needs and concerns of decision-makers. This flexibility must be designed into policy projects as well. Several aspects of policy flexibility deserve special attention.

1. Changes in the policy environment (e.g., a significant change in exchange rates) can radically affect the project purpose and the chances for its success. Should such changes occur, consultations should be held with the host country officials to review and revise project objectives and organization.

2. Project integration into the country policy system must not be left to the final year. Projects sometimes tend to become ends in themselves, with the attendant danger that they will have no impact on the policies they are analyzing or the institution they aim to strengthen.

3. The USAID Mission should be alert to the implications of project findings for its entire portfolio, including both policy and nonpolicy activities. An agricultural policy analysis unit can provide significant baseline data for use in general monitoring of the agricultural sector and of A.I.D. projects in particular. A well-functioning policy analysis unit can be a valuable resource for the Mission agricultural development officer in conducting evaluations and designing new projects. Such interaction will also strengthen the visibility of the unit and underscore its usefulness to decision-makers.

4. Large model-building exercises or surveys that tie up project resources for years should not be undertaken. The results of such efforts have been very disappointing and have demonstrated the danger of tying down the analytic agenda too early, thus losing the flexibility to respond to decision-maker concerns and policy crises.

5.3 Project Evaluation

The dual concerns of policy reform and institutional capacity carry over into evaluation of policy projects. Even if the project aims primarily at capacity building, the evaluation should examine whether the project appears to have had an impact on policies or at least whether useful information was provided to decision-makers. Conversely, an evaluation of a project directed at encouraging short-run change in policies should also measure the project's long-term impact on analysis and decision-making.

The review of A.I.D. experience cited above found that, regardless of whether the project was intended to build institutional capacity or to promote immediate reform, it was far more likely to have an impact on capacity building than on policy reform. Most projects demonstrated at least some positive impact on host country analytic institutions, and several have been quite successful in this area, but very few could be clearly linked to substantive policy change. As argued above, this finding suggests that, in most cases, the technical assistance project mode is not the most appropriate mechanism for accelerating policy reform.

The framework used for the review of A.I.D. experience with agricultural policy analysis and planning projects provides a good starting point for developing a scope of work for evaluating most policy projects (or policy components in broader projects). This framework examines project impact and performance in four areas:

1. Impact on institutional capacity, including staff development, strengthening of data and information management systems, and expansion of policy analysis and dissemination activities.

2. Impact on interinstitutional relations, including provision of data or information to support decision-making and analysis in other institutions affecting the agricultural sector, as well as expanded cooperation and coordination.

3. Impact on decision-makers, including their awareness of and demand for policy analysis, their commitment to supporting it, and their direct involvement in managing it. The project's apparent impact on decision-makers' understanding of policy issues and options and the expected impacts of alternative reforms under consideration should also be examined.

4. Impact on policies and programs, in terms of actual changes attributable at least in part to project-sponsored analysis and dissemination of the findings.

In addition to these special concerns, the evaluation should encompass the standard design and implementation issues (flow of funds, quality and timeliness of technical assistance, effectiveness of participant training, and so on), as discussed in the general guidance on project evaluation.

6. A.I.D. RESPONSE III: PROGRAMS TO PROMOTE POLICY REFORM

When A.I.D.'s assistance strategy is directed toward policy reform, program assistance may offer a better vehicle than the traditional project approach. The two assistance modes share many similarities; nevertheless, the program mode differs from the project mode in key respects. The effective design, implementation, and evaluation of program assistance must reflect these differences. This section briefly highlights the major concerns in program assistance as they apply to the agricultural sector, drawing on recent A.I.D. and other donor experience to extract lessons learned. Appendix G provides a case study of a major A.I.D. agricultural program assistance activity (the Niger Agricultural Sector Development Grant) in order to illustrate how several of these lessons apply to a particular situation.

6.1 Program Design Considerations

Four issues are central to the design of program assistance for policy reform:

1. The linkage between funds provided and the reform program
2. The definition of reform measures and steps toward their achievement
3. The degree of government support for the reforms
4. Program elements other than funds transfer

Under the program assistance mode, there is not necessarily a direct connection between the level of funds provided (or the way they are used) and the purpose to be achieved. The program constitutes an agreement between the United States and the host government: the host government agrees to make certain changes in policies or to carry out certain activities, and the United States agrees to provide a certain amount of funds and sometimes other assistance. Depending on the nature of the changes and the progress of intergovernment negotiations, the level of funds provided may have little to do with the specific cost of the reforms. Indeed, some of the reforms may be intended to save the host government money. The lack of a precise connection between funding and program activities clearly distinguishes program assistance from projects, for which the expected cost of the activities to be undertaken must be carefully estimated as the basis for the budget.

In the program mode, the reform program undertaken by the host government is, in effect, the output (in project Logical Framework terms), which is designed to achieve liberalization of agricultural markets, reduction of government deficits, or other broad purposes. Ideally, achievements at both the output and the purpose levels should be precisely defined and quantified so that they can be monitored during project implementation.

Defining reform benchmarks is probably the most difficult and definitely the most important task associated with program design. Many of the difficulties encountered by programs in the past can be traced to benchmarks that were too specific or too general, too poorly defined, or too far-reaching. Benchmarks must be defined to fit the specific country situation. Nevertheless, certain lessons emerge from experience. Policy reform benchmarks must be easily monitored during the reform program, quantified (not just quantifiable), and clearly linked to government performance. Table 4 gives some examples illustrating both inadequate and adequate benchmarks.

Table 4. Distinguishing Between Adequate and Inadequate Benchmarks for Policy Reform

	Inadequate	Better But Not Good Enough	Adequate
Benchmark:	Increase agricultural production by 5%	Raise expenditures on agricultural support services	Raise operating budget of agricultural research and extension by 25%
Problem:	Change is not wholly within government control	Too vague for verification	
Benchmark:	Reduce subsidies on agricultural inputs	Reduce subsidies by 25%	Bring fertilizer price in main region to within 10% of import price plus domestic marketing costs
Problem:	Too vague for verification	Subsidies are not sufficiently defined	
Benchmark:	Liberalize grain market	Reduce government marketing share to less than 25%	Reduce government marketing activity to less than X tons
Problem:	Too vague, not qualified	Difficult to verify if production data are weak; hard for government to plan in advance of harvest	
Benchmark:	Bring all prices to world levels	Increase wheat and rice prices by 50%	Bring wheat and rice prices to within 10% of import parity
Problem:	Too sweeping; hard to determine adequate performance	May be superseded by changes in world or local markets (e.g., large fall in world price)	

There are two basic types of benchmarks, and the choice of which to use will shape both program design and implementation:

-- Action-oriented benchmarks define specific steps that the government will take, such as reducing subsidies by a given amount or rescinding regulations on private trade.

-- Results-oriented benchmarks define the outcome that will result from the reform program, such as an increased percentage of grain trade moving through private channels or a reduction in the deficit in the price stabilization fund, but these benchmarks do not explicitly define the measures to be taken.

Although it might seem that the specificity of action-oriented benchmarks would make them the best choice in most situations, this is not necessarily the case. Efforts to define specific measures can easily overwhelm the discussions in technical details. This kind of discussion puts the donors at a disadvantage because of their lack of information and leaves too much scope for opponents of the reform to take countermeasures that can undermine the reform efforts.

Experience shows that the most effective programs are those that help the host government take the steps that it recognizes to be necessary but difficult. A program that pays a government simply to take actions it would have taken anyway is obviously a waste of money. But at the same time, the evidence is overwhelming that program assistance cannot be used to make a government take steps that its leaders do not support. The record of donors withholding funds for nonperformance is not an encouraging one: time after time, host governments have been able to get the funds, while avoiding real reform.

Despite good-faith efforts on all sides, time pressures and uncertainties during negotiation of program assistance may result in the development of reform benchmarks that are not fully defined when the agreement is signed. In such cases, it is highly desirable to build in traditional project-type funding to carry out the analysis or other measures needed to finalize the reform program. Project-type funding may also be included in a program to finance monitoring activities or the direct cost of specific actions associated with the reform. For example, a program that includes liberalization of cereal markets implies a need to gather information on the prices of grain (and, if possible, volumes) as it moves through official and open-market channels. The price information may then be broadcast in direct support of better market operation. Both the collection and the dissemination of price data are suitable for direct financing as part of the program.

There are almost as many ways to configure an assistance program as there are ways to design an agricultural extension project. Box 5 displays some of the options for the various major elements of a program design.

6.2 Program Implementation

Program assistance generally requires less staff time per dollar expended than does traditional project assistance, an important consideration in an era of shrinking staff size and operating budgets. Nevertheless program assistance still requires implementation. The difficulty does not lie in fund disbursement, which is usually straightforward (unless commodity procurement is involved, as it is in a commodity import program [CIP] or PL 480-based program). Rather, it arises from the need for regular, often intense discussions with the host government, backed by ongoing monitoring and analysis of progress under the reform program. It is one thing to say that fertilizer imports will be liberalized; it is quite another to verify with local importers that tariffs, licensing requirements, and access to foreign exchange are favorable to private importing; to work out any problems with the appropriate authorities; and to monitor private importation and sale of fertilizer.

Four major lessons are suggested by program assistance experience.

> Lesson 1
>
> Keep the initiative on the host government side.

When the donors and the host government disagree on how to implement a particular reform (or whether it should be implemented or even whether it has been implemented), stepped-up donor efforts to define acceptable reform measures are rarely the answer. Donors simply do not have enough information about the local situation, political concerns, and other policy discussions to work at this level of detail. If the donors seek to overcome government hesitation by proposing reforms themselves, they are likely to find each proposal discredited by host government representatives with superior understanding of local conditions or counteracted by other measures of which the donors are unaware. For example, a donor effort to liberalize the rice market in a West African country remained a pyrrhic victory for several years because the host government opened up to traders only the regions it knew would have no rice production in a given year.

Box 5. Design Options for Program Assistance

Design Element	Options
Level of Funding	- Performance-based: more reform, more money - In tranches: disbursements approved annually if reform benchmarks achieved - Reform-linked: funds provided to finance reforms themselves (e.g., transition costs) - One-time payment: either before or after reform is implemented
Form of Funding	- Direct loan or grant of foreign exchange - Commodity import program - Allocation of local currency reflows from U.S. sources (e.g., PL 480) - U.S.-owned local currency (not always viewed by government as a strong incentive) - Specific commodities (e.g., PL 480)
Benchmarks	- General targets defined in advance, with specific measures negotiated annually - Precise targets negotiated in advance, with schedule of annual measures
Benchmarks To Avoid	- General targets defined, but no specific procedure for approving annual programs - Specific targets with no provision for renegotiation or amendment
Use of Local Currency Reflows (if any)	- Not specified (host government choice) - To finance specific development program (not A.I.D. projects) - To finance local cost of A.I.D. projects (may make it difficult to withhold disbursements if reforms are not made on schedule)
Coordination With Other Donors	- Independent program, with consultation - Joint program, with common benchmarks or other procedures to coordinate disbursements - Coordinated program, with related reforms (e.g., A.I.D. program in agricultural sector, IMF/World Bank in industry and trade)
Technical Assistance	- Programmed level of long- and short-term technical assistance - Fund for studies, controlled by government - Fund for studies, controlled by USAID Mission - For training and capacity-building only - None (if program is well defined)

The definition of specific reform packages to meet benchmarks is therefore better left to the host government. The government is in a better position to identify measures that will achieve the agreed-on benchmarks at the lowest political and practical cost. The donors must then evaluate what the government proposes and accept or reject it on the basis of the best information available to them.

Lesson 2

Don't count on withholding funds for non-performance.

In theory, the logic of program assistance for policy reform requires that funds be withheld if the government does not institute the agreed-on measures. In fact, the pressures to continue disbursements are very high. The only way to reduce the risk of a one-sided program is to ensure that the measures agreed on are sufficiently well defined in advance to determine that they have full government support and are feasible from all perspectives. This requirement is not met (1) if reforms are defined in such general terms that it is impossible to determine whether the benchmark has been met; (2) if so many reforms are included on the list that the standard for acceptable performance is unclear; or (3) if the reforms are defined so specifically that any change in economic circumstances is almost sure to render them irrelevant.

For example, it is rarely advisable to set specific price targets several years in advance, as was done in at least one A.I.D.-supported reform program. Changes in world prices, variations in domestic production conditions, and local inflation quickly make any such specific schedule obsolete.

Lesson 3

Changing economic circumstances affect programs more than projects.

The example given above suggests why programs are more easily derailed by changing economic circumstances than are most projects. Price increases for basic foodstuffs may be agreed to in a period of low inflation and fiscal balance, but they become politically unacceptable if prices start to climb or the IMF imposes a wage freeze on government employees. It is impossible

to foresee every macroeconomic eventuality and design a program that is impervious to them all. But it is possible to predict with confidence that, over a 5-year period, at least one large, unexpected, unpleasant, and uncontrollable change will hit the country in question. The only protection against this near-certainty is to establish a program that is to be implemented in a 1- or 2-year period or to maintain maximum flexibility in defining reforms so that progress can be measured under shifting conditions. These protective tactics are very difficult to apply in practice because the need to achieve significant reform tends to imply a multiyear process, while the need for clear, measurable standards of performance often conflicts with the need for flexibility.

> Lesson 4
>
> Although donor coordination is a necessity, it may be a hindrance as well as a help.

Multidonor action can be a powerful tool to promote reform. Each donor operates under different internal restrictions (on fund use, for example), and consequently a group of donors has more options and more funds than any single donor. If donors can form a common front, they can exert considerable pressure in favor of key reforms.

However, the more donors become involved in the process, the harder it is to reach agreement on what the reforms should be. Each donor has its own, slightly different view of development priorities and the appropriate policy response. If donors with divergent views attempt to forge a single proposal for reform, the end product is likely to be very general, very bland, internally inconsistent, or all three. Despite these difficulties, if several donors are active in promoting reform, close coordination among them is imperative.

6.3 Program Evaluation

Evaluation of program assistance requires a somewhat different set of criteria than those used for project assistance. The performance of a program must be judged on at least four grounds:

1. Purpose: Did the reforms implemented achieve the intended impact on the economy? For example, if the purpose was to end a government monopoly over fertilizer trade, did the private sector actually take over a substantial portion of the fertilizer market?

2. Output: Regardless of whether the desired impact was achieved, were the reforms actually implemented? Did the government change marketing regulations, remove price controls, raise producer prices, and so on?

3. Process: Regardless of whether the reforms were actually implemented, did A.I.D. do all it could to promote reform? Were there regular discussions with the government? Was sufficient analysis done to support proposals?

4. Inputs: Were the practical aspects of program implementation carried out in an acceptable fashion? Were funds disbursed quickly when appropriate? Was agreed-on technical assistance provided?

Although each program must be evaluated on its own terms, the checklist in Box 6 may be helpful as a point of departure in developing the scope of work for a program evaluation.

Box 6. Issues To Be Addressed in a Program Evaluation

Evaluation Criterion	Performance
Purpose	- Were the desired effects of the program clearly defined? - Were the desired effects achieved as a result of the program? - If not, was this due to unforeseen economic circumstances that caused the reforms to be ineffective or to a failure to implement the planned reforms?
Outputs	- Were the planned reforms implemented? - If so, were the necessary companion measures implemented to make them effective, or were other measures taken that rendered the reforms ineffective? - If not, was the failure to implement the reforms due to unforeseen economic conditions, misjudgment of government willingness to make the reforms, poor specification of the reforms, or insufficient support to remove roadblocks? - Did the reform package as initially defined remain valid throughout the period? - If not, was it possible to modify it to reflect changing circumstances?
Process	- Were the mechanisms established for A.I.D.-host government dialogue effective? - Was there sufficient donor coordination? - Was sufficient analysis done to support recommendation of specific reform measures? - Were host country analysts adequately involved throughout? - Was the dialogue carried out at a sufficiently high level on the host government side to achieve results? - Were appropriate U.S. agencies (State, Commerce) involved? - Was sufficient information available to monitor progress toward reform, and was it used effectively?
Inputs	- Were funds disbursed smoothly once conditions were met? - Were funds withheld when conditions were not met? - If counterpart funds were generated through a CIP or similar mechanism, did this work effectively? - If counterpart funds were to be used for specific purposes (e.g., support of local costs for A.I.D. projects), was this mechanism effective and did it support reform? - Did pressure to generate counterpart funds compromise the reform process? - Was technical assistance, if any, effective?

APPENDIX A

DRAFT TERMS OF REFERENCE FOR A POLICY INVENTORY AND DIAGNOSIS

Objective. To identify key macroeconomic, sectoral, and subsectoral policies and to qualitatively assess direct impacts and interactions among them. An important output of this inventory is the determination of priorities for reform, policies requiring in-depth analysis in order to identify alternative reforms, and an estimate of the likely effect of such reforms on agricultural performance.

Methodology. The study methodology will encompass four phases. The first phase will concentrate on identifying the content and objectives of major policies affecting the agricultural sector, using secondary sources and interviews with government officials, producer associations, and others. The second phase will entail a qualitative evaluation of these policies using economic efficiency and social welfare criteria to determine the degree and direction of their impact on the agricultural sector. The third will consist of discussions with government officials and other interested parties to review the findings regarding policy impacts on agriculture. In the final phase, a subset of priorities for reform will be defined on the basis of the evaluation and discussions performed in phases two and three, together with analytic needs and potential for A.I.D. involvement in promoting reform.

Conceptual Framework. The inventory will consider three levels of policy: macroeconomic, sectoral, and subsectoral. The macroeconomic level will emphasize monetary and fiscal policies, commercial regulations, and foreign trade policies. At the sectoral level, attention will focus on government efforts to regulate the level and fluctuation of product prices, food supply, price and distribution of agricultural inputs, and access to and use of land, water, and other production inputs. Subsectoral policies will be analyzed on the basis of key product groups. A suggested product grouping is staples, fruits and vegetables, export products, and livestock. Within each group, the analyst will document and assess policies to increase the volume of production, price control regimes, input pricing and supply, and regulations on import, export, and domestic marketing.

Qualifications of Consultants. The study implementation requires the participation of a macroeconomist, an agricultural economist, and [identify additional specialists]. The macroeconomist should have a doctorate in economics (or equivalent) and 5 years of experience in monetary and public finance economics. The agricultural economist should have a doctorate in

agricultural economics (or equivalent) and 5 years of experience, and extensive familiarity with agricultural production and marketing issues in developing countries, and strong quantitative policy analysis skills.

Time Frame. The study will take a total of_____ weeks and will be conducted in both the United States and the host country. The evaluation team will submit a draft report prior to departure from the host country. The final report will be due 2 weeks after comments on the study are provided by A.I.D.

Output. The final report will follow the attached outline.

Suggested Outline for a Policy Inventory

1. An overview of the agriculture economy

   a. The role of agriculture in the economy
      -- Contribution to gross domestic product (GDP) by major subsectors
      -- Agricultural income
      -- Agricultural employment
      -- Foreign exchange earnings (gross and net)
      -- Government expenditures related to agriculture

   b. Agricultural performance for the past 10 years
      -- Land use, cropping intensity, yield
      -- Input utilization (including credit)
      -- Production
      -- Value of production
      -- Exports and import levels
      -- Reform performance

   c. Public sector interventions in agriculture
      -- Economic incentives and disincentives
      -- Regulatory functions
      -- Direct participation in infrastructure and input provision, production, marketing, and trade through public sector institutions
      -- Information and supporting services

   d. Current issues and prospects
      -- Constraints to development
      -- New developments and trends
      -- Five-year outlook

   e. Degree of distortion in economic incentives
      -- Domestic price policy for inputs and products
      -- Quantitative restrictions in domestic trade
      -- Tariffs and other trade policies

2. Functions and interrelationships of agricultural institutions

   a. Identification of public sector institutions responsible for formulation or implementation of policies affecting agriculture. Institutions will be identified in terms of legal authority, delivery mechanisms, subsector coverage, and effectiveness. Policy decision-making interactions among institutions will be identified. Institutions will include the following:
      -- Information, research, extension, and support service organizations
      -- Price/production control agencies
      -- Tax authorities
      -- Agricultural credit and input suppliers
      -- Budget and fiscal agencies
      -- Planning groups
      -- Data and economic research agencies
      -- Other

   b. Identification of private sector institutions and description of their roles in influencing formulation/implementation of policies affecting agriculture. Groups or components may be considered institutions if they actively influence agriculture. Such institutions include the following:
      -- Information and research service organizations
      -- Agricultural credit and input suppliers
      -- Producers and producer groups
      -- Traders and marketing firms or individuals
      -- Private organizations and lobbyists
      -- Trade and labor unions
      -- Other

   c. Basic economic and social objectives of agricultural policy as viewed by key participants in advisory, lobbying, and decision-making activities.
      -- Production objectives
      -- Consumption objectives
      -- Consumer income and welfare objectives
      -- Producer income and welfare objectives
      -- Income distribution and equity considerations
      -- National fiscal and monetary objectives
      -- Generation/conservation of foreign exchange
      -- Security objectives including food supply and price stabilization
      -- Resource use and conservation goals
      -- Other

3. Description of the following for each of the current set of policies affecting agricultural performance at the macroeconomic, sectoral, and subsectoral levels:

-- Objectives, instruments, legal and institutional bases, division of responsibilities, and operational efficiency

-- Targeting strategies and evidence of targeting efficiency

-- Estimated cost and effectiveness regarding the specified set of objectives

-- Principal policy options regarding alternative means, program levels, and objectives

4. Conclusions and recommendations

-- Impact of policies on agricultural performance
-- Immediate priorities for reform
-- Medium-term priorities for reform
-- Areas requiring further analysis

APPENDIX B

SAMPLE FORMAT FOR A POLICY INVENTORY AND DIAGNOSIS

Experience with the policy inventory technique demonstrates that the impact of the exercise is greatly enhanced if the results are widely disseminated among decision-makers and used as the basis for A.I.D.-host government discussion of policy issues. A voluminous report can be a barrier to this process, particularly in countries where English is not the official language. To address this problem and make the inventory more useful for both USAID Mission personnel and the host government, A.I.D.'s Agricultural Policy Analysis Project (APAP) has developed a simple technique for summarizing inventory findings.

The technique is based on organizing the policies affecting the agricultural sector into a logical framework and presenting this framework in a series of tables. For each of the major policies identified, the table presents purpose, implementing institution, impact on selected socioeconomic variables, a brief explanation of the impacts, and principal alternatives to the existing policy. An example of this format, taken from a policy inventory for El Salvador, is presented in Tables B-1 through B-3 at the end of this appendix.

In the case of El Salvador, policies were divided into the following 3 categories and 10 subcategories, and a table was prepared for each category:

-- Macroeconomic: fiscal, monetary, external trade, and regulatory

-- Sectoral: fiscal, monetary, external trade, resources, and technology

-- Subsectoral policies, by major product group

Although this structure is generally applicable to any country situation, it can easily be modified to highlight areas of special concern.

A key feature of the format is its provision for an assessment of the impact of each policy on selected socioeconomic variables. In the El Salvador case, this assessment was based on the professional judgment and experience of the policy inventory team members, since resources for a more formal analysis were not available. The assessment nonetheless proved helpful to USAID Mission and host government personnel, who were able to gain a clearer picture of the direct and indirect impacts of various policies on the economy. Five impact areas were identi-

fied in El Salvador: (1) production, (2) import expenditures, (3) domestic consumption, (4) export revenues, and (5) government revenues. As with the policy framework, the impact areas can easily be modified to include other variables of special concern to the host government, such as impact on low-income consumers, impact on small farmer income, impact on food security, and so on.

Table B-1. Policy Category: Macroeconomic, Fiscal
(an example from a policy inventory for El Salvador)

Policy Intervention/ Impact Sector	Purpose	Implementing Institution	Impact Assessment[a]					Explanation of Policy Impact	Principal Alternatives Suggested for Analysis
1. Level and structure of taxation/agriculture	Revenue generation	Ministry of Finance	-1	0	-1	-2	+1	Taxes extracted from the agricultural system have averaged 10-11% of agricultural value added;[b] 90-95% of the sector's fiscal contribution originates in the coffee export tax, which, at current prices and exchange rates, has strong negative impact on the profitability of coffee production. Declining coffee output is closely related to falling agriculture employment, income, and consumption.	1. Revise coffee export tax to more nearly approximate an income tax rather than a gross sales tax. 2. Broaden the agricultural tax base. 3. Improve tax administration and collection.
2. Level and structure of expenditures/ agriculture	Provide public goods, services, and infrastructure	Ministry of Finance	-1	-1	-1	?	+1	Central Government expenditures on agriculture,[c] at 6-7% of total expenditures, are low compared with agricultural sector tax revenues and agriculture's contribution to GDP. While agriculture's share in central Government's expenditures has remained constant, its share is of a declining total in real terms. Expenditures are biased in favor of livestock and traditional export crops.	1. As conditions permit, increase real levels of expenditure. 2. Revise intrasectoral allocation of expenditures in light of short- and medium-term national development objectives. (See Table 5, Sectoral Fiscal Policy).

[a] -2 = highly unfavorable, -1 = unfavorable, 0 = neutral or negligible, ? = mixed or uncertain, +1 = favorable, +2 = highly favorable.

[b] Not including income and stamp taxes, which are thought to be small, although specific data are unavailable.

[c] Includes current and capital expenditures, not financial investment.

Table B-2. Policy Category: Macroeconomic, Monetary

Policy Intervention/ Impact Sector	Purpose	Implementing Institution	Impact Assessment[a]					Explanation of Policy Impact	Principal Alternatives Suggested for Analysis
1. Interest rate regulation/ agriculture	Regulate supply and demand for financial resources; influence costs	Monetary Board[b] Central Bank	+1	0	+1	+1	+1	The government has adopted an interest rate structure designed to provide a positive real rate of return to savers and full cost recovery on lending operations. Agricultural borrowing rates are only modestly lower than in other sectors. Through its impact on savings, this policy should enhance investment and growth over the medium term.	1. Implement this policy more actively through more flexible and frequent interest rate revisions. 2. Study interest rate measures to foster the development of long-term financial investments.
2. Supply of credit/ agriculture	Support production, processing, and marketing	Central Bank Commercial banks Agricultural Finance Bank Cajas de Credito	-2	-1	-1	-2	-2	While efforts have been made to increase agriculture's share in total lending, new credits to the agricultural sector have fallen 25% in real terms since 1979. Refinancing has grown from 9% to 33.5% of total credit to the sector, while arrearages and debt-service obligations continue to accumulate.	1. Refinance outstanding overdue loans on extended repayment terms. 2. Increase volume of new credits to agriculture. 3. Study restructuring of agricultural credit to provide finance for nontraditional crops, agricultural processing, and marketing.

[a]-2 = highly unfavorable, -1 = unfavorable, 0 = neutral or negligible, ? = mixed or uncertain, +1 = favorable, +2 = highly favorable.

[b]The Monetary Board is composed of the heads of the following institutions: Central Bank and the Ministries of Planning, Economics, Finance, Agriculture, and External Trade.

Table B-3. Policy Category: Macroeconomic, External Trade

Policy Intervention/ Impact Sector	Purpose	Implementing Institution	Impact Assessment[a]					Explanation of Policy Impact	Principal Alternatives Suggested for Analysis
1. Support of the official rate of exchange/ agriculture	Avoid inflationary and, possibly, contractionary short-term consequence of devaluation Preserve political credibility	Monetary Board Central Bank Ministry of External Trade	-2	-2	-2	-2	?	An overvalued exchange rate reduces the domestic price of tradable goods, which incude virtually all agricultural commodities. While there is some controversy regarding the short-run impacts of devaluation in El Salvador, given current conditions, there is no question that the medium-term development prospects of the agricultural sector are jeopardized by an overvalued exchange rate. The recently initiated process of selective devaluation suffers from the following: (1) ad hoc implementation by fiat--contributes to uncertainty and sociopolitical tension; (2) no intrinsic correspondence between sector or subsector imports and exports--creates potential for distortions and windfall gains/losses; (3) administratively complex; (4) given its uncertain and selective implementation, may not be providing the desirable incentives of a devaluation, especially for needed investment decisions.	1. Implement further selective devaluations. 2. Establish a crawling peg. 3. Officially devaluate. 4. Establish higher import tariffs and provide export subsidies.
2. Import tariffs/ agriculture	Generate revenues Protect domestic suppliers	Ministry of Finance Ministry of External Trade	0	0	0	0	1	Agricultural inputs and commodities imported from the Central American Common Market (CACM) are largely exempt from tariffs. Applicable tariff rates for non-CACM imports of these types of goods are low.	1. In the absence of devaluation, establish higher tariffs on competitive imports of agricultural commodities.

[a]-2 = highly unfavorable, -1 = unfavorable, 0 = neutral or negligible, ? = mixed or uncertain, +1 = favorable, +2 = highly favorable.

Table B-3. Policy Category: Macroeconomic, External Trade (cont.)

Policy Intervention/ Impact Sector	Purpose	Implementing Institution	Impact Assessment[a]					Explanation of Policy Impact	Principal Alternatives Suggested for Analysis
3. Import subsidies (implicit)/ agriculture	None enunciated	Central Bank Ministry of Agriculture Ministry of External Trade	-1	-1	?	?	?	Selective exchange rate policy permits the importation of agricultural inputs and most commodities (including PL 480) at the official rate. Imported inputs are thus implicitly subsidized, though the extent of the subsidy is limited through restricted access to foreign exchange. Subsidized imports of competing commodities clearly encourage imports and discourage domestic production. Domestic consumption may be sustained in the short run, but will be harmed later. Falls in production harm export prospects in general, with some exceptions. Reduced production and exports may reduce Government revenues in the long run, though such losses may be offset through import tariffs and the proceeds of PL 480 sales in the short run.	1. In the absence of devaluation, revise tariffs and/or domestic pricing policy for competing imports in order to mitigate disincentives to domestic producers.
4. Export subsidies (implicit)/ agriculture	None enunciated	Central Bank Ministry of Agriculture Ministry of External Trade	+1	0	-1	+1	?	Selective exchange rate policies provide export subsidies for certain industries by providing access to artifically cheap inputs. Examples include non-CACM exporters of cotton yarn/textiles and poultry, who are allowed to sell foreign exchange at the parallel rate while acquiring inputs (raw cotton, PL 480 yellow corn) at world prices at the official rate of exchange.	1. Devaluate to foster the development of domestic-input-based agro-industry. 2. Impose import tariffs on competing imports and provide explicit export subsidies when justified.
5. Nontariff barriers to trade/ agriculture	Restrict imports	Central Bank Ministry of Agriculture Ministry of External Trade	?	+1	-1	0	-1	These barriers operate through import licensing requirements and, especially, through restricted access to foreign exchange at either the official or parallel rates. Restricted import of agricultural inputs hurt production, while restrictions on competing imports may help somewhat. Total imports are effectively reduced by such barriers, thereby restricting domestic consumption and Government tariff collections.	1. Devaluate. 2. Subsitute tariffs for nontariff barriers.

[a]-2 = highly unfavorable, -1 = unfavorable, 0 = neutral or negligible, ? = mixed or uncertain, +1 = favorable, +2 = highly favorable.

APPENDIX C

MAPPING AGRICULTURAL POLICY INSTITUTIONS: GRAIN PRICE POLICY IN MAURITANIA

No single institution is responsible for setting grain prices in Mauritania. Prices are determined through a process involving approximately a dozen institutions, only some of which belong to the agricultural sector, and through decisions taken by a handful of key individuals in the national leadership. As in most countries, the ministry of agriculture (the Ministry of Rural Development in Mauritania) plays an active role, but it is not the final decision-maker.

Key features of the Mauritanian system are as follows (as "mapped" in Table 2 of the main report):

-- Many different institutions share responsibility for setting prices.

-- The institutions that set the policies are not necessarily the ones that implement them.

-- The formal structure is only part of the story; the influence of key individuals cannot be fully explained by their positions in the formal decision-making process.

The price-setting process, moreover, varies from crop to crop. As the following discussion makes clear, there are really three price-setting processes: one for local grains (in which market forces and the government both play a hand), one for imported grains (in which the government takes the lead role), and one for rice (a special case because importation is a government monopoly). The mechanisms for setting grain prices have developed over time and are still evolving as changing circumstances affect economic conditions and government objectives in the grain market.

The primary institution with formal responsibility for setting grain prices is the National Committee for Food Security (CNSA). Created in 1981, CNSA is an interministerial committee comprising representatives from the Food Security Commission (CSA), which is responsible for managing food aid and Government procurement of local grain, and the Ministries of Rural Development, Finance, and Planning.

CNSA's technical committee, chaired by the Director of Agriculture from the Ministry of Rural Development, takes the lead role in analyzing local price conditions and recommending the price at which grain should be bought and sold in the

country, based on analysis of consumers' ability to pay, the costs of production, and other factors. To the extent that analysis plays a role in Mauritanian grain price policy, it is largely through the work of this committee.

The membership of the technical committee is much broader than that of CNSA itself; the technical committee includes representatives from the major parastatals as well as additional ministries. Its work is also influenced by the regional committees established in each province (region) under the regulation that created the CNSA system.

Actual decisions on price changes, however, are made not by CNSA but by the Military Council (CMSN), which governs Mauritania under the chairmanship of the President. Since donors are the major suppliers of imported grain, the sale of which also finances the Government's domestic grain purchases, the donor community exerts considerable influence on the final decision regarding the price of both imported grains and locally purchased stocks. This influence is exercised formally, through bilateral agreements and official discussions in the donor Consultative Group, informally during negotiations leading up to the annual determination of food aid levels and conditions, and daily, through personal contact between donor staff and Government officials.

The Government has a virtual monopoly on the sale of imported grain, which is handled by CSA at both wholesale and retail levels. This monopoly is a side effect of the current economic crisis, which has dried up private commercial imports, rather than a result of policy. Thus, the Government has effective control over the price of imported grains. Although it has only limited ability to control the prices on the resale market, which is fairly active, its dominance of the market as a whole ensures that retail prices do not move too far out of line.

The Government officially sets local grain prices, but its share of this market is too small to make the official prices effective. Although a system of policing prices (economic control) exists, financial and manpower resources are insufficient to enforce officially determined prices. Trade in local grain is dominated by private traders, who set prices in accordance with market conditions. Nevertheless the Government exerts considerable indirect control over this market because the national grain market is dominated by imported supplies that move through Government channels.

The system for setting producer prices for domestic rice is essentially the same: CSA procures rice from farmers at a price set by the national Government on the recommendation of CNSA and

its technical committee. Unlike the market for traditional grains, however, farm-level procurement of rice is a state monopoly.

The system for determining the sales price for rice differs, however, from that for other grains. The wholesale market for imported rice is also a state monopoly, and the price of this rice is determined by the Ministry of Finance and Commerce. Prices at subsequent levels in the marketing chain are in theory determined by the governors in each of the regions, based on local transport costs and officially set margins. In fact, however, local authorities have little enforcement ability and inadequate local data and analytic capacity to determine appropriate margins based on actual costs.

The grain pricing system has undergone several changes in the past few years as the urgent need to respond to the drought crisis and the change of government in 1984 gave rise to new institutions and procedures. Chief among these is the National Commission for Assistance to Drought-Affected Populations (CNAPES), which has taken on a broad role in planning and overseeing implementation of a variety of programs. This role emerged from CNAPES's responsibility for the Emergency Action Plan, a special planning mechanism developed to manage expanded donor and host government activities during the current drought crisis. Although somewhat broader, the membership of CNAPES largely overlaps that of CNSA. The status of CNAPES as a top-level policy body is shown by the designation of the Permanent Secretary of the ruling council (CMSN) as its chairman.

Like the CNSA, CNAPES is backed by a technical committee and subsidiary bodies in each region, the Regional Committees for Assistance to Drought-Affected Populations (CRAPES). Unlike the CNSA regional committees, however, the CRAPES have assumed an active role in overseeing and implementing food security measures, including Government sales and distribution of foodstuffs. This role is a product, in part, of the considerable influence of the institutions that are represented on CRAPES. For example, CRAPES membership includes representatives of the Organizations for Public Education (SEMs), a new but influential body through which local political authorities (governors, prefects, and the like) communicate their concerns to higher levels of government; SEMs, among other things, also determine who will receive free food.

In addition to CSA's formal role as a member of these policy organizations, it has a major influence on the effectiveness of grain pricing policy through its responsibility for both the sale and distribution of donor-supplied commodities and for implementation of the post-harvest grain procurement program. CSA decisions at the technical level determine the extent to which official pricing policies will in fact be reflected in

market conditions. For example, the way in which CSA allocates its limited truck fleet between transport of donor-supplied commodities and procurement of domestic grain clearly influences how effective the support price will be in the interior. The timing and management of free food distributions also have a major impact on the domestic grain market, particularly when such distributions account for a large portion of total national grain supplies and are provided to a majority of the population, as was the case in 1984/1985.

In recognition of the need to tie CSA operations more closely to Government policy in the food sector, the Government has recently established a governing council for CSA, with members drawn from the same group of central and sectoral ministries that make up CNAPES and CNSA. The CSA council is too new, at this writing, to determine how effective it will be in translating national policy into action.

As the agency that is virtually responsible for feeding Mauritania, CSA has tremendous economic and political influence. This situation ensures that the CSA Commissaire will have the confidence of and easy access to the President and have a major influence on national grain policy and its execution even beyond that which derives from CSA membership on CNAPES and the CNSA. Thus, assuming that the President and the CSA Commissaire are both strong individuals capable of working together and that they have at least tacit support from donors, it is clearly possible for these two key individuals to set Mauritanian grain price policy between them, with little reference to the formal structure described above.

APPENDIX D

POLICY ANALYSIS: RICE POLICY IN LIBERIA

Defining the problem under study is the most critical and difficult part of policy analysis. A case in point is that of Liberia, where the degree of rice self-sufficiency has declined steadily since 1976 despite a policy favoring rice self-sufficiency. Is the problem of declining self-sufficiency caused by a poorly managed parastatal implementing a producer support price? Is the PL 480 rice program providing disincentives to domestic producers? Or is declining rice self-sufficiency even a problem, given Liberia's comparative advantage in tree crops?

What may appear to be a problem from a general overview of the agricultural policy environment (declining self-sufficiency) may, upon more rigorous analysis, turn out to be a reasonable response to broader economic forces (higher returns to coffee, cocoa, and other crops). If the policy analysis reveals a different perspective on the problem, adjustments will need to be made in the definition of the problem. For the Liberia example, the problem might be redefined to center on whether policies promoting rice self-sufficiency should be pursued at all, given Liberia's apparent lack of comparative advantage in rice.

It is not enough to define the policy problem and send a competent team to the field to do the analysis. The process is not that straightforward. The role of the agricultural development officer is to orchestrate many elements to ensure that policy analysis fits into a policy dialogue strategy. A brief chronology of price policy analysis for rice in Liberia illustrates how a combination of USAID Mission and centrally funded resources was employed in managing and conducting policy analysis.

-- The Government domestic rice price support program and a PL 480 rice program raise questions about pricing and self-sufficiency policies. While attending a conference, the agricultural development officer learns of a Bureau for Science and Technology (S&T) project that provides policy analysis assistance.

-- The S&T project provides a policy analysis team and cofunds the work with the USAID Mission. The team visits Liberia and arranges for U.S. training of Liberian analysts. Personal contact between the policy analysis team and the Minister of Agriculture are arranged.

-- The USAID Mission seeks assistance from another S&T project to examine domestic rice marketing issues. Informal collaboration between the two S&T projects begins.

-- Planning for a senior-level policy workshop begins. The Minister of Agriculture is actively involved in ensuring that all major institutions and actors involved in rice policy are represented at the workshop.

-- The Liberians trained in the United States begin to coauthor analytical papers with the policy analysis team. Microcomputer simulation models of policy impacts and alternatives are designed.

-- The second S&T project begins collecting data on the impact of rice policies and works closely with Liberians trained under the first S&T project.

-- Liberians present papers on policy options at the senior-level policy workshop. A.I.D. and consultant attendance is severely restricted.

This very abbreviated chronology shows that effective policy analysis does not occur in a vacuum. In the end, four elements were involved in the rice policy analysis effort: two S&T projects, the USAID Mission's Agricultural Sector Analysis and Planning (ASAP) project, and the Planning Division of the Ministry of Agriculture. The managerial demands placed on the agricultural development officer and the ASAP project director during the 15 months covered by these activities were considerable.

APPENDIX E

BUILDING CAPACITY: AN EXAMPLE FROM THE PHILIPPINES

The Philippines Integrated Agricultural Production and Marketing Project (IAPMP) was implemented between 1977 and 1983. A $19-million endeavor, the project included a substantial policy analysis component. IAPMP illustrates the difficulties and opportunities involved in incorporating policy analysis capacity building into a broader project.

1. THE POLICY ANALYSIS COMPONENT

The purpose of the project was to increase small farmers' productivity and to improve the efficiency of the marketing system for their products. Among the outputs of the project were the following:

-- Trained agricultural marketing experts

-- Alternative policy approaches and strategies for an integrated production and marketing system

-- Technological packages for use by farmers, processors, and exporters

Within the overall project, a number of policy objectives were stated. Chief among these were enhancement of linkages between analysts and decision-makers, improvement of agricultural data bases, enhancement of computer capacity, development and use of subsector models, and strengthened policy analysis technical skills.

2. EVALUATION FINDINGS

The design and implementation constraints and the recommendations listed below are taken from the mid-term and final evaluations of IAPMP. The principal constraints to achieving the policy-related objectives were the following:

1. No one agency was clearly in charge of integrating the entire project.

2. No person or committee had charge of project policy once the project began.

3. Authority for agricultural planning and policy was split among several agencies after the project began.

4. The relationship between the policy component of the project and small-farmer income was not defined or established.

5. A lack of capable, experienced personnel to replace the expatriate consultants was likely to impede future policy analysis.

6. Low salaries resulted in high turnover among trained analysts.

This case exemplifies the difficulty of designing a policy-analysis component within a complex project, especially when the ultimate uses and users of the analysis are unspecified. The issue of what constitutes capacity for policy analysis was also highlighted in this project. The project used expatriate consultants to provide project-specific policy analysis and did not adequately address the institutionalization of the capacity for policy analysis. To develop long-term, indigenous capacity, a project must address such difficult institutional problems as salary levels of staff and appropriate training programs.

3. LESSONS LEARNED AND RECOMMENDATIONS

The IAPMP had a number of successes, including improved statistical capability in the Ministry of Agriculture, better quality research due to the graduate training of staff, and improved capacity to design and implement technical packages among the Filipino university staff who worked on the project. The policy impacts, however, were less successful. The evaluations suggested several ways to better integrate policy analysis into such broad projects in the future:

1. Stronger, deliberately planned linkages must be established between the Ministry of Agriculture and other agencies involved in food policy analysis.

2. In complex projects, an executive committee must be formed to coordinate policy analysis efforts with other project components.

3. A project dealing with a number of technically diverse areas may require a consortium of institutions to provide technical assistance. There are very few institutions with equal capabilities in conducting and institutionalizing policy analysis, analyzing marketing systems, and developing technical packages for production and processing.

4. Policy analysis and capacity-building efforts need to focus on the specific policy problems addressed by the project.

5. Close attention must be given to the institution in which a policy analysis unit is to be located or upgraded. In particular, the project design must address the problems of low pay scales for analysts returning from training programs and of insufficient manpower, which may severely limit the number of analysts an institution can afford to release for long-term training.

APPENDIX F

BUILDING CAPACITY: LESSONS FROM THE BOTSWANA EXPERIENCE

The Botswana Agricultural Planning project (1977-1980), a $4.7-million project, is an example of a successful project designed specifically to increase host country capacity to conduct agricultural policy analysis and planning.

1. THE POLICY ANALYSIS COMPONENT

The purpose of the project was to develop an economic and analytical capacity within the Government of Botswana to plan and program responses to the problems of rural development. The two principal outputs of the project were the following:

-- Increased Government of Botswana capacity to plan and evaluate projects and to assess and modify rural development strategies

-- Increased numbers of middle- and upper-level analysts with relevant skills in rural development, research, analysis, planning, implementation, and evaluation

The project combined practical in-country training and advanced overseas coursework for personnel from the Planning and Statistics Unit (PSU) of the Ministry of Agriculture. U.S. experts assisted with in-country training and occupied professional positions in the PSU while counterparts were being trained. The main policy areas addressed by the project were as follows:

-- Income generation for small farmers and herders
-- Use of scarce arable land
-- Land tenure and conservation policies
-- Water rights and water conservation

2. EVALUATION FINDINGS

The final evaluation of the project was very positive, although a few areas for improvement were identified. The principal achievements and constraints are listed below.

1. Data collection and publication of agricultural statistics on farm management improved enormously.

2. The PSU assumed an important role in policy and project review within the Ministry of Agriculture.

3. The U.S. university training for the 20 PSU officials was well designed and well conducted. Specific positions within the PSU were reserved for these trainees.

4. PSU staff developed the capability to respond quickly to project-level policy and planning problems. Long-range economic analysis was given a lower priority.

5. Linkages between PSU analysts and district-level planners were weak. PSU data and analyses were not used optimally at the district level.

6. Coordination between the PSU and the Ministry of Finance and Planning was insufficient to ensure the use of PSU information in policy and project approval decisions.

This case shows the advantages of concentrating institution-building efforts in a well-defined, existing unit within a ministry of agriculture. Project policy issues and training goals were concrete and adapted to the needs of the institution. PSU trainees were assured of a position related to their training upon their return. Finally, the number of analysts who were to receive long-term training was manageable, and responsibility for the project was centered in the unit receiving the assistance.

The case also displays some of the limitations of policy analysis units. In particular, the evaluation noted that the PSU was not yet able to make a significant impact on policy-making outside the Ministry of Agriculture, its parent ministry. At the policy-making level, in the Ministry of Finance and Planning, the PSU had difficulty influencing decisions. At the district level, there were no formal lines of interaction with planners who were potential users of policy analysis information. Establishing ties to policymakers and implementers outside the parent institution is a critical, often overlooked aspect of capacity-building projects. Over a longer period of time it is likely that PSU will be able to establish these ties if it continues to produce high-quality analysis.

3. LESSONS LEARNED

The evaluation team stressed that the Botswana Agicultural Planning project should serve as a model for future A.I.D. projects involving technical assistance and training for agricultural policy and planning development. Two suggestions were made for improving such projects:

1. Capacity-building projects should allot more time and personnel to long-term policy issues; otherwise, staff time and resources will be consumed in "fighting fires" on narrow project issues.

2. The lack of a clearly articulated national policy can severely compromise national development programs. An agricultural sector assessment (or policy inventory and diagnosis) can help to structure long-range analytical policy effort.

APPENDIX G

PROGRAM ASSISTANCE: RECENT EXPERIENCE WITH AN AGRICULTURAL SECTOR DEVELOPMENT GRANT IN NIGER

1. BACKGROUND

A downturn in Government revenues and economic activity in Niger in the early 1980s strained the Government's ability to maintain its input distribution system and marketing organizations. Government subsidies on grain consumption and fertilizer, accompanied by operating deficits in a number of public sector companies, including the agricultural credit agency, forced a curtailment of Government intervention in the rural economy.

In this economic environment, a Joint Program Assessment was undertaken by the USAID Mission and the Government of Niger. The Joint Program Assessment examined technical packages for agriculture, grain marketing, and other topics and developed a series of policy recommendations on agriculture and rural development. The exercise culminated in the Zinder Conference in late 1982, attended by decision-makers, policy analysts, Government officials, and USAID/Niger personnel. This conference suggested an extensive agenda of reform for policies, operations, and orientation of Government programs.

Subsequent contacts between USAID/Niger and the Government of Niger continued to focus on elements of the agricultural policy reform agenda set at the Zinder Conference. The Agricultural Sector Development Grant grew out of this policy dialogue. The offer of Economic Support Funds (ESF) was made to encourage difficult reforms and to support the financial needs of the reforms.

2. AGRICULTURAL SECTOR DEVELOPMENT GRANT

The Agricultural Sector Development Grant provides $32 million to the Government of Niger to support agricultural policy reforms. The policy changes are designed to reduce Government intervention in agricultural input supply, grain marketing, and cross-border trade. The policy reforms are expected to diminish the role of government in these areas and encourage the private sector to assume functions previously performed by parastatals.

In a major reform under the Development Grant, the Government has agreed to reduce subsidies on inputs and adopt free-market pricing. This reform will release Government funds for more productive purposes and will encourage the private sector to become more active in the distribution of inputs. The reform should also lead to an increase in the availability of inputs, which had been limited because of the lack of sufficient subsidy funds.

A second major reform affects output pricing and marketing policies. The grain marketing parastatal is to (1) abandon pan-territorial pricing, (2) buy and sell through competitive bidding, (3) increase storage at the village level, and (4) reduce stored grain to levels consistent with an emergency reserve rather than use it as an interyear buffer stock for price stabilization purposes.

Other areas of reform involve deregulation of trade with Nigeria, improving the agricultural credit system, and encouraging the development of private cooperatives.

Funding under the Agricultural Sector Development Grant is divided into tranches that are to be disbursed according to progress in achieving agreed-on policy reforms. Prior to disbursement, the Government and USAID/Niger jointly assess the progress to date to determine whether the agreed-on conditions have been met.

Three million dollars of the grant has been set aside for technical assistance to finance policy studies, monitor reforms, and identify additional needed reforms. A contract team from the University of Michigan is providing support to a monitoring unit in the Ministry of Rural Development.

3. PROGRESS TO DATE

The Agricultural Sector Development Grant was signed on August 31, 1984. In May 1985, a short-term agricultural policy adviser was placed in the Ministry of Rural Development to begin establishing a policy analysis unit to help the Ministry draw up and implement the policy reform plans. The adviser also prepared a work plan and budget for the long-term technical assistance team that arrived in Niger in October 1985. The short-term senior agricultural policy adviser took over the responsibilities of the team leader for the long-term technical assistance team.

The reforms required for the release of the second tranche of funding were the following: (1) reduction of the maximum subsidy on any agricultural input to no more than 50 percent of

the delivered cost, (2) establishment of competitive procedures for buying and selling 20 percent of the grain handled by the Government and allowing private traders and cooperatives to participate in the marketing, (3) initiation of an agricultural credit study, (4) reduction of restrictions on border trade, (5) promotion of grain storage with cooperatives at the village level, and (6) development of a plan of action for the following year.

In late November 1985, the final evaluation report and plan of action for the Agricultural Sector Development Grant was approved by the Government and forwarded to A.I.D. for approval.

4. LESSONS LEARNED

Six lessons with broad relevance to the program assistance mode were derived from the experience of the first 3 years of the Agricultural Sector Development Grant:

1. Setting an agenda. The need for reform was self-evident. However the type, timing, sequencing, and extent of reforms were unclear. Had USAID/Niger unilaterally imposed the reform conditions, the conditions would probably have met with resistance and they might have been inappropriate. Thus, a collaborative approach was needed. The Joint Program Assessment provided the forum for the Government and USAID/Niger to agree on an agenda, and the Development Grant fortified the political will to proceed with reforms. As a result of the collaboration, an open dialogue has been institutionalized as part of the Development Grant, thus facilitating efforts to identify and map out strategies for new policy reforms.

2. Interpretation of requirements. Although the necessity of maintaining food security stocks is recognized, major differences have arisen in trying to establish appropriate levels. The various donor organizations active in the agricultural sector in Niger have not coordinated their positions. The Sahel drought has intensified political factors involved in the decision. A.I.D.'s principal concern was the budgetary impact of maintaining high levels of food stocks. The Government of Niger was concerned primarily with the political consequences of depending on donor organizations to finance a major portion of the food stocks.

3. Translating principles into programs. While it was agreed that the cereal market should move toward free-market pricing, agreement still had to be negotiated on the method and pace of reform. Implicit in the reform was a shift in the role of the Government from that of a participant in the market to

that of a regulator of the market. Reform would require a reduction in restrictions on the import and export of agricultural commodities and a lifting of the prohibitions against private sector participation in marketing. The accompanying reduction of input subsidies and the change in the method of government procurement and sale of grain amount to a basic change in the role of the government in an agricultural economy.

4. Institutional aspects of the reform. The language of the Agricultural Sector Development Grant was broad and vague about privatizing the agricultural input sector. Nevertheless, the Government has taken bold steps to introduce private sector management incentives and structure. Also, the fertilizer distribution organization is being turned over to cooperatives, which are being given greater autonomy than before. Major questions remain unanswered, however, concerning the repayment and restructuring of existing debt, legal restructuring of management, and the financial viability of newly privatized businesses.

5. Capacity for policy analysis. In the preparation and monitoring of the Agricultural Sector Development Grant, almost all of the analysis is being conducted by expatriates. If the reform process is to continue beyond the life of the grant, some attention will have to be paid to the lack of indigenous policy analysis capability.

6. Donor coordination. A.I.D.'s efforts to encourage policy reform are being augmented by a World Bank structural adjustment loan of $60 million. The Bank is specifying the same policy reform conditions as A.I.D. The International Monetary Fund is negotiating a standby agreement predicated on policy reforms specified by the World Bank.

APPENDIX H

SOURCES OF INSTITUTIONAL ASSISTANCE FOR POLICY ANALYSIS

The following institutions offer a good starting point in the search for specialized expertise to support policy analysis, dialogue, and reform. Although these institutions are particularly active in policy analysis and economic research related to agricultural development issues, they are by no means the only institutions with expertise in these fields. This list has been restricted to U.S. not-for-profit organizations and international centers; additional expertise may be found in non-U.S. institutions and in private firms.

Center for Research on Economic Development (CRED): A specialized institute for research and teaching on economic development issues at the University of Michigan, Ann Arbor, Michigan, CRED specializes in issues affecting Sub-Saharan Africa.

Food and Agricultural Organization (FAO): A United Nations agency, the FAO provides technical assistance to member governments, publishes reports and other documents on analytic methods, and conducts training courses for developing country personnel. (Contact: UN Resident Representative or FAO, Via Della Terme di Caracalla, 00100 Rome, Italy.)

Food Research Institute (FRI): A specialized institute for research and teaching located at Stanford University, FRI offers degree and some nondegree training in agricultural policy.

International Agricultural Research Centers (IARCs): Most of the IARCs (international centers associated with the Consultative Group for International Agricultural Research, or CGIAR) have agricultural economics units capable of providing short-term assistance in analysis of agricultural policy issues, particularly issues related to their crops of specialization. In most cases, assistance must be financed from outside resources. Among the largest centers are the following:

-- Centro Interamericano de Agricultura Tropical (CIAT), Palmira, Colombia

-- Centro International Para El Mejoramiento De Maiz Y Trigo (CIMMYT) El Batan, Mexico

-- International Center for Agricultural Research in Dry Areas (ICARDA), Aleppo, Syria

-- International Center for Research in the Semi-Arid Tropics (ICRISAT), Hyderabad, India

-- International Rice Research Institute (IRRI), Los Banos, the Philippines

International Fertilizer Development Center (IFDC): Conducts research on issues related to the production, marketing, and application of fertilizer. (Address: IFDC, Muscle Shoals, Alabama 35661.)

International Food Policy Research Institute (IFPRI): An IARC specializing in food policy issues, IFPRI conducts and publishes research on agricultural policy issues, particularly those relating to consumption issues. (Address: IFPRI, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036.)

Land Tenure Center (LTC): A specialized institute at the University of Wisconsin, Madison, the LTC carries out research, training, and technical assistance related to issues of land ownership, tenure, and agrarian reform, with particular reference to Latin America.

U.S. Agency for International Development (A.I.D.): Provides support for government and private sector analytic capacity. Assistance available only through government-to-government agreements. (Contact: U.S. Embassy or A.I.D., Washington, D.C. 20523. For copies of reports and publications available to the public, contact the A.I.D. Document and Information Handling Facility, 7222 47th Street, Suite 100, Chevy Chase, MD 20815.)

U.S. Department of Agriculture, Economic Research Service (ERS): Conducts economic research and policy analysis on U.S. agricultural policy issues both domestic and international. Maintains public access databases on world supply, utilization, and prices for internationally traded commodities. (For reports and the like, contact ERS, Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250.)

World Bank: In addition to its ongoing lending operations, the World Bank offers support to policy analysis through publication of staff papers on analytic techniques and other reports (contact the World Bank publications office) and through training programs for developing country personnel (contact the Economic Development Institute). (Address: 1818 H Street, N.W., Washington, D.C. 20433.)

APPENDIX I

GLOSSARY OF ECONOMIC TERMS RELATED TO AGRICULTURAL POLICY ANALYSIS

ad valorem tax (subsidy): a tax fixed as a percentage of the total monetary value of the commodity (e.g., a 5-percent tariff).

balance of payments: the net value of a country's trade (exports less imports).

barrier to entry: a policy, preexisting situation (such as lack of sufficient transport), or condition (such as presence of a cartel) that tends to prevent new firms from entering a market.

black market: a market in which goods are sold illegally or under illegal conditions (e.g., at prices above the official price); see parallel market.

border price (world price): the price, usually expressed in foreign exchange, at which a good can be imported (c.i.f.) or exported (f.o.b.) from a given country, net of any duties or other charges imposed by the government; usually regarded as the opportunity cost or shadow price for a tradable (see appropriate entries).

budget constraint: (1) for an individual consumer or producer, the total budget available for a given class of expenditure (e.g., food in the case of a consumer), which sets the limits within which tradeoffs must be made between goods within that class; (2) for a government, the total availability of financial resources for capital and operating expenses within which all individual expenditures must fit.

budget line: the budget constraint expressed in the form of a straight line connecting the maximum amount of good A that can be purchased within the budget, the maximum amount of good B, and all feasible combinations in between.

buffer stock: a physical stock (usually of grain) held by a government or individual for consumption during periods of scarcity or to reduce variation in the price of the commodity over time.

capital: one of the three basic factors of production; the stock of equipment used to produce a good; financial resources available for investment.

capital intensive: a production technology that makes heavy use of equipment and other nonlabor inputs, either absolutely or in comparison with competing technologies.

cartel: an association, sometimes secret, of producers or consumers for the purpose of controlling the market (e.g., raising prices).

c.i.f. price: the price of an import at the port, including the base cost in the country of origin, insurance charges, and freight.

comparative advantage: the ability of a country to produce a given good at a lower cost than another country relative to other goods that both produce, or (loosely) the ability to produce and export a given good at a price below the border price.

competition: the presence of several firms in a given market, such that prices are determined by supply and demand, no single firm or group of firms has sufficient control over the market to affect the price, all firms and consumers face a single price, and there is reasonably complete knowledge available to both consumers and producers regarding market conditions.

competitive equilibrium: a situation wherein the price for a given good and the quantity sold (consumed) are determined by a market operating under competitive conditions, such that, at the prevailing price, suppliers are unwilling to supply more of the good and consumers do not wish to purchase more than the amount supplied.

complementary good: a good that is usually consumed (or produced) along with another given good (e.g., butter is a complementary good for bread), so that as more of the second good is consumed (produced), more of the first good will also be consumed (produced).

concentration (degree of): the extent to which a given market (e.g., tomatoes in Madrid) is dominated by a single firm or group of firms, usually expressed as the total market share (percent) held by the top x firms.

concessional imports: imports of food or other commodities that are financed in whole or in part by bilateral or multilateral donors.

consumer surplus: the sum of the amounts that each consumer would be willing to pay for a given good above the price of that good, usually regarded as equal to the roughly triangular area under and to the left of the demand curve and above the price line.

cost-benefit analysis: a technique for analyzing specific policy interventions or investments wherein the costs and benefits are quantified for each time period and then discounted and compared to determine whether total discounted benefits exceed total discounted costs.

cross-price elasticity: the elasticity (usually of demand or supply) for a given good with respect to the change in the price of another good (e.g., the percentage change in rice output that would be expected to result from a 1-percent decrease in the price of fertilizer).

deadweight loss: the loss to the economy as a whole that results from the reduction in economic efficiency that is caused by policy or nonpolicy factors, such that prices differ from the equilibrium level, usually expressed as the sum of consumer and producer surplus.

decision-maker: an individual who makes a policy decision or is directly involved in making a policy decision along with others (usually but not necessarily a high government official or group of high officials).

demand curve: a line (usually represented as concave) that shows the total quantity of a given good demanded at each price.

depreciation (appreciation) of the exchange rate: a drop (increase) in the amount of foreign exchange that can be purchased with a given unit of local currency, whether caused by a formal devaluation or other factor (such as movements of relative currency prices on the open market).

devaluation: a formal reduction in the amount of foreign exchange that can be purchased with a unit of local currency at the official rate.

discount rate: a measure of the value of money (or anything of value) in a future time period (usually the next year) compared to another time period (usually the present), generally expressed as a percentage and regarded as a measure of the minimum acceptable real return on investment.

distortion: a policy or other factor (e.g., taxes, subsidies, quotas) that causes the market price and quantity for a given good or service to differ from the equilibrium level.

domestic resource cost: a measure of comparative advantage in the production of a particular tradable, expressed as the total value of domestic factors of production needed to produce an amount of that good sufficient to earn one unit of foreign exchange (e.g., one dollar).

duty: see tariff.

economies of scale: a situation whereby the level of additional inputs needed to produce an additional level of output is less than proportional to the existing level of output (e.g., a doubling of production requires less than a doubling of inputs).

econometrics: generally, the measure of economic levels, but often as a synonym for regression analysis.

effective rate of protection: a measure of the total rate of tax or subsidy on a traded good, taking into consideration direct taxes and subsidies, overvaluation or undervaluation of the currency, and taxes and subsidies applied to factors of production and intermediate inputs used in its production.

efficiency (economic): the degree to which a given economic situation results in the maximum level of production and consumption possible within the existing resource constraints, so that it is not possible to increase the value of production by reallocating inputs from one production process to another, or to increase social welfare by reallocating goods from one person to another.

elasticity (see also income elasticity, substitution): a measure of the relationship between changes in two factors, expressed as the percentage change in one factor that would result from a 1-percent change in the other factor; especially the price elasticity of demand (the percentage drop in the amount of a good demanded by consumers in response to a 1-percent rise in its price) or the price elasticity of supply (the percentage rise in supply in response to a 1-percent increase in price).

endogenous: in modeling, a parameter that is determined by factors within the model.

equilibrium: the point at which two or more opposing forces (particularly supply and demand) are in balance.

exchange rate: the price of a foreign exchange expressed in the local currency.

exogenous: in modeling, a parameter that is determined by factors outside the model (usually set by the analysts on the basis of information available to them).

externality: a cost (negative externality) or benefit (positive externality) associated with a particular good or service that is not captured by the market such that it is reflected in the price (e.g., the value to farmers of organic manure left by sheep grazing a harvested field; however, if the farmers pay the herdsmen--directly or indirectly, formally or informally--this value is said to be internalized in the market and so is not an externality).

factor of production: a basic economic input, usually land, labor, and capital.

fair price shop: see ration shop.

farmgate price: the price received by the farmer, net of any charges for transport to the marketplace or preliminary processing before sale at the wholesale level; usually refers to the price for a good in unprocessed form (e.g., paddy rice, not milled rice).

fixed price: a price set by government decree or regulation but usually not backed by a government commitment to buy or sell at a level needed to maintain the market price at this level.

fixed-quantity intervention: a limited subsidy, with only a fixed quantity of a commodity made available at the subsidized price (usually less than the amount demanded at this price) or a tax that applies only to a given quantity of the amount produced (e.g., a mandatory delivery quota for rice at a below-market price).

f.o.b. price: the price of an export received by an exporter at the port ("free on board"), that is, without netting out any port charges, loading charges, or taxes.

food balance sheet: information in table format showing the sources and uses of food produced, imported, exported, and consumed by a given country and the importance of each commodity in meeting the caloric and protein needs of the population.

food security: the degree to which a given country is able to ensure its population access to adequate food supplies through domestic production and commercial importation (excludes concessional imports).

food self-sufficiency: the degree to which a country is able to meet the food consumption requirements of its population from domestic production, net of any exports.

food stamps: a food subsidy system in which consumers are issued coupons, redeemable at any shop, to purchase food; shopkeepers are reimbursed by the government.

function (production or consumption): an equation expressing the relationship between the level of production (consumption) and the levels of other factors, such as the price of the good and competing goods, the price of inputs, the amount of each input used to produce the product, and so on.

guaranteed price: see support price.

household budget survey: a sample survey designed to measure expenditures, savings, and consumption at the household level.

income effect: the increase in consumption of a given good as its price falls that is due to the resultant increase in the consumer's effective income (i.e., the consumer's ability to buy more with a given monetary income), rather than to the substitution effect.

income elasticity: the percentage change in expenditures on a given good in response to a 1-percent change in the consumer's income.

indifference curve: for any two goods, a curve showing combinations of consumption levels of the two goods that are equally acceptable to a consumer (e.g., three apples, two bananas, or two apples, five bananas).

indirect tax (subsidy): a tax that is imposed not on the good itself but at a later or earlier stage in the production process, such that it indirectly affects the cost of a particular good (e.g., a tax on jute bags that indirectly acts as a tax on rice sold in such bags).

inferior good: a good that is consumed in reduced quantities as consumer income rises (i.e., a good that has a negative income elasticity of demand).

intercept: in mathematics, the point on the vertical axis where a given function crosses it (if any); the value that the dependent variable takes when the independent variable is set at zero.

intermediate inputs: inputs used in the production of a given good that are themselves the product of earlier production processes and cannot be reused (e.g., seed, fertilizer) and are not factors of production.

intervention: see policy intervention.

isoquant: a curve on a two-variable plot on which all points on the curve correspond to a single level for a third variable; for example, combinations of labor and capital corresponding to a given level of production form an iso-product curve; see also indifference curve.

labor-intensive: a production process that uses relatively high levels of labor relative to alternative processes (see capital intensive).

leakage: a situation in which the impact of a given subsidy is not restricted to the intended group (e.g., nonpoor consumers receive subsidized food) or a given tax does not reach all of the intended group (e.g., some of the good is exported without payment of duty).

license (import, export, and others): a permit required by the government as a precondition for operating in a given market; may be issued on a one-time basis or required for each transaction.

linear programming: a modeling technique that can be used to predict the mix of goods that will be produced (consumed) when competing alternatives require the same set of resources, which are assumed to be available in fixed amounts (e.g., tomatoes and wheat, which both require family labor and land in July).

local currency: the official unit of currency in a given country.

lump sum transfer: a subsidy (tax) structured in such a way that the recipient (payer) receives (pays) a fixed amount of money, with no restrictions on its use; generally regarded by economists as the least distorting form of subsidy or tax (see also transfer payment).

macroeconomics: the branch of economic theory concerned with the general price level (inflation), overall economic performance (growth), fiscal and monetary policy, and international trade balances.

margin controls: a government system that sets the marketing margin (and therefore the price at which a given agent can sell a given good) as a fixed percentage of the price paid by that agent.

marginal unit: the last or an additional unit of a given good produced or consumed.

marginal value product: the additional income gained by producing an additional unit of a given good; equal to the price in a competitive equilibrium situation.

market clearing price: the equilibrium price, that is, the price at which the amount supplied is identical to the amount demanded or the price at which the total quantity of a good available on the market (e.g., the annual crop of maize) will be sold.

market failure: a situation in which the unregulated operation of the market does not lead to a competitive equilibrium, because of monopoly, oligopoly, lack of information, or entry barriers; the existence of externalities or public goods that prevent the competitive equilibrium from being Pareto optimal (see below).

market intervention: a policy or other government action that causes the price and quantity in a given market to differ from the competitive equilibrium levels.

market price: the price observed in the market, which may or may not be the equilibrium price, depending on the presence or absence of distortions, such as quotas and taxes.

market share: the percentage of the total market for a given good or service (e.g., apples in the United States) that is met through sales by a given firm (individual, country).

marketable surplus: the portion of the crop that producers have available for sale after meeting their family consumption needs.

marketing margin: the difference between the price paid for a given good (e.g., to producers) and the price received by a given marketing agent, expressed either as an absolute amount (e.g., 5 pesos) or a percentage of the purchase price.

means test: a procedure that restricts access to a particular program or benefit (e.g., subsidized food) to individuals (families, other groups) with income below a certain level.

microeconomics: the branch of economic theory concerned with the behavior of consumers and producers and the operation of markets.

milling ratio: the ratio between the weight of the milled product (e.g., rice, wheat flour) and the weight of the grain.

model: a simplified version of the real world that is intended to capture certain key relationships in order to permit them to be analyzed, observed, or understood more fully or easily; usually a system of equations that simulates economic interactions, used, for example, to predict the outcome of changes in the economic environment.

monopoly (monopsony): a situation in which a single producer (consumer) has a 100-percent market share.

nominal rate of protection: a measure of the tariff or subsidy on a given good, including the effect of overvaluation (undervaluation) of the exchange rate.

nontradable: a good or service that, by its nature, is not generally exported or imported (e.g., electricity); factors of production have traditionally been viewed as nontradables (see also tradables).

objective function: an equation that measures the total net value derived by a firm (individual, society) from a given situation (e.g., a given level of sales for each good produced).

oligopoly (oligopsony): domination of a market by a small number of producers (consumers) who are able to set prices and market shares through formal collusion or informal cooperation (see cartel).

opportunity cost: the benefit that must be given up in order to obtain a competing benefit (e.g., foregoing the pleasure of eating one's cake now in order to enjoy it later).

overvalued exchange rate: an official rate of foreign exchange that is higher than the equilibrium level (i.e., a unit of local currency can officially buy more foreign exchange than would be the case at a market clearing exchange rate); causes imported goods to be artificially cheap for domestic consumers and exported goods to receive an artificially low price in local currency.

parallel market: a market for a given good or service that operates outside official channels but is not necessarily illegal (e.g., sale of foreign exchange by banks at a rate above the official rate of exchange).

parameter: a measurement of the relationship between two variables that is assumed to be fixed exogenously and not to vary during the analysis.

parastatal: an enterprise owned by the state, or loosely, any enterprise or other organization that sells goods and services and over which the state exercises management control (e.g., state-sponsored cooperatives).

Pareto optimality: a condition in which there is no possibility of shifting goods among consumers in such a way that no consumers are worse off than before the shift and some are better off.

performance indicator: a measure of the performance of the economy relative to established goals (e.g., an increase in grain yield, an increase in total production, a decline in unemployment).

policy intervention: an action by the government that, intentionally or unintentionally, affects the operation of the market, such as a tax, subsidy, or quota.

policy inventory: a technique used to obtain a rapid overview of government policy interventions in a given country at a given time and to identify their impact on important variables in the economy (e.g., production, income) in order to set priorities for policy analysis and possible reform.

post-harvest losses: the percentage of a crop that is lost to pests or because of mishandling between harvest and final consumption or export.

price ceiling: an official upper limit on the price of a given good, usually a trigger price at which the government will begin selling the commodity to prevent further price rises; the term is also used to refer to a fixed price that is not enforced by government purchase and sale.

price floor: an official lower limit on the price of a given good, usually a trigger price at which the government will begin buying the commodity to prevent further price drops; the term is occasionally also used to refer to an unprotected fixed price.

price line: on a price-quantity diagram, a horizontal line indicating a particular price level.

price-quantity diagram: the basic microeconomic diagram, with price on the vertical axis and quantity on the horizontal axis, used to represent the supply and demand curves in comparative static analysis to show market operation under various assumptions.

producer surplus: the total amount that producers receive at a given price over and above their total cost of production, generally interpreted as the roughly triangular area between the price line and the supply curve.

productivity: the level of production of a given output that is obtained per unit of a given input, usually a factor of production (e.g., tomato output per hectare, rice harvested per labor day).

projection: a forecast of future levels for given economic variables of interest (e.g., grain production) based on current levels and assumptions regarding their relationship to future economic activity.

public good: a commodity, such as air or national defense, that cannot practicably be denied to any individual without denying it to everyone, that continues to be available regardless of how much a given individual consumes, and that therefore must be produced or regulated by government action, rather than left to the marketplace, in order to ensure socially optimal availability.

quota: a government-set limit on the maximum amount of a given good that can be imported or exported or, more generally, on the maximum or minimum quantity that can be purchased or sold on a given market, domestic or international.

rate of return: the profitability of a given investment, expressed as an interest rate producing a return on investment equivalent to the investment's net benefit (cash flow) over its life.

ration shop: a government-operated store at which consumers may buy goods at subsidized prices, either in fixed quantities or in unlimited amount.

regression: a statistical technique used to measure the effect of one variable on another (or, in multiple regression, of several variables on a given variable), while holding the effect of other factors constant.

rent (economic): the return earned by a factor of production or by sale of a given good over and above the marginal costs of its production or importation (often a result of artificial scarcity due to policy-induced distortions).

rent-seeking behavior: actions on the part of individual producers, importers, or consumers to take advantage of opportunities to earn economic rents (e.g., by bribing officials to obtain import licenses so that the goods can be sold at inflated prices on the domestic market).

reserve stock: (see buffer stock).

resource constraint: the total availability of a given resource, such as land (see also budget constraint).

resource transfer: an economic transaction in which resources (e.g., money) are transferred from one individual (or group) to another without changing the total availability of the resource to society as a whole.

response (e.g., yield response, acreage response): the change in a particular variable of interest that is made by economic actors (e.g., farmers) in reaction to a change in the economic conditions under which they operate (e.g., an increase in acreage planted to carrots resulting from an increase in the price of carrots).

retail: in a marketing system, the level that deals directly with the final consumer (e.g., grocery stores).

scarcity value: (see shadow price).

self-targeting commodity: a good (such as low-quality sorghum) that is not preferred by consumers, so that relatively well-off consumers will not purchase it in preference to another good (such as rice), even if the commodity is sold at a lower price.

shadow price: a price, generally different from the market price, that represents the society's opportunity cost for the good in question; often taken as equivalent to the equilibrium price in the absence of policy distortions, monopoly, or other market failure.

side payment: a payment from one party in a transaction to another or to a third party that is not included in the price of the good or service sold (e.g., a bribe).

social accounting price: see shadow price.

stabilization fund: a pool of funds maintained by a government for the purpose of stabilizing the price of a commodity over time, financed either by direct allocation of government resources or by government trading in the commodity on world markets.

substitute goods: a good that consumers tend to use instead of another good when there is a change in the goals' relative prices (e.g., butter and margarine, maize and wheat); see also complementary goods.

substitution (technical): the process of shifting the technology of production so that more of one input (e.g., leather) and less of another (e.g., plastic) is used to produce a given type and level of output (e.g., 10 pairs of shoes).

substitution effect: consumer response to the change in price for a given good resulting from the change in the good's price relative to the price of competing goods and not from the consumer's increased ability to buy the good (see income effect).

supply curve: a line showing the quantity of a given good that will be produced for sale at each price level (by a single firm or in total).

supply-utilization identity: in trade analysis, the formula expressing the concept that the amount of a given good sold (exports plus domestic consumption) must equal the amount available for sale (domestic production net of losses plus imports).

support price: a producer price guaranteed by the government; the price at which the government is willing and able to purchase as much as necessary in order to keep the price from falling below that level (compare fixed price).

surplus: (see consumer surplus, marketable surplus, and producer surplus).

targeting efficiency: a measure of the degree to which the benefits of a particular government program (e.g., subsidized food sales) are restricted to the intended beneficiary or target group (e.g., poor consumers); (see also self-targeting commodity).

tariff: a tax levied on an import or export (also referred to as a duty).

tradable: a good or service that by its nature can be imported or exported by a given country (see nontradable), regardless of whether it is currently traded.

traded good (nontraded): a good that is (not) currently imported or exported into a particular country.

tradeoff: the necessity for an individual or society to give up some of a certain good, service, or benefit in order to increase the availability of another good, service, or benefit, while staying within a given resource constraint.

transfer payment: a transfer of funds from one economic entity (individual, government, or firm) to another that is not made in direct exchange for goods or services and therefore neither increases nor decreases the total availability of resources for other uses (e.g., a tax payment, a charitable contribution).

trigger price: a price at which the government is committed to enter the market to buy (sell) a given commodity to prevent its price from falling below (rising above) the official level (see price floor, price ceiling, and fixed price).

unit tax (subsidy): a tax or subsidy in which the amount is fixed per unit of measure (e.g., 5 pesos per kilogram).

utility function: in economic theory, a formula that relates the level of each good and service consumed to the total utility or benefit derived by an individual consumer (or, more rarely, by society as a whole).

value added: the difference between the value of the final good and the value of the intermediate inputs used to produce it, which is added during the production process and usually interpreted as the return to the factors of production, land, labor, and capital.

welfare: a measure of the total benefit to society as a whole or to a particular group, such as consumers; not usually quantified.

welfare function: see objective function.

wholesale function: in a marketing system, the level or the function of buying from the farmer or other producers for sale to firms at the retail level.

world price: see border price.

yield: in agriculture, the rate of output of a crop, usually expressed as units of output per unit of land (e.g., kilograms per hectare, camel loads per acre, bushels per feddan).

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Beneke, R., and E. Winterboer. 1973. Linear Programming Applications to Agriculture. Ames, Iowa: Iowa State University Press.

A practical presentation of techniques for farm modeling using linear programming. Although the text is oriented to a particular program (MPS) and is therefore somewhat dated, the clear and agriculture-specific treatment of such topics as transfer rows, crop and livestock rotation, multiyear activities, bounded and unbounded activities, and so on, makes this a useful guide for anyone wishing to build or use a linear programming farm model.

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The standard text on cost-benefit analysis techniques as applied to projects in the agricultural sector. It presents a thorough, step-by-step discussion of all aspects of project analysis, making extensive use of examples and illustrations. Methods used are field-tested for applicability under conditions pertaining to developing countries. Discussions of shadow-pricing methodology and partial budget analysis are particularly applicable to agricultural policy analysis.

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Well illustrated with examples from developing country experience, the paper discusses methods of calculating and interpreting accounting prices (shadow prices) for tradables and nontradables in the agricultural sector, including land, labor, and capital. The volume includes detailed discussion of how to calculate nominal and effective protection coefficients, domestic resource cost, and equivalent subsidies and how to use them in evaluating agricultural policies that directly or indirectly affect prices in the sector.

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Uses examples drawn from analysis of price policy issues in selected developing countries to present analytic tools relevant to these issues and to demonstrate their application. Each example is discussed extensively in nontechnical terms, with the analysis presented separately, so

that the volume is equally useful for the analyst and for those interested only in the results of the analytic process. Specific topics discussed include rice price stabilization in Korea, price supports and input subsidies in Bangladesh, integration of world and domestic grain markets in Thailand, and price management for related products (grain, meat, and milk) in Colombia.

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In addition to the tables on recent economic performance that are regularly included in the World Development Report, the 1986 edition contains an extensive discussion of agricultural policy issues, particularly as they relate to trade and fiscal issues. The discussion is particularly noteworthy for the broad perspective offered by the comparison of problems and solutions for both developed and developing countries.

World Bank Staff Papers on Agricultural Prices

Although now somewhat dated, this series of papers remains one of the best sources for in-depth analysis of agricultural price issues from a policy standpoint. Individual papers include the following:

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Cuddihy, William. 1980. Agricultural Price Management in Egypt. Staff Paper No. 388.

Reca, Lucio. 1981. Argentina: Country Case Study of Agricultural Prices, Taxes, and Subsidies. Staff Paper No. 387.

Yotopoulos, Pan, and Jeffrey Nugent. 1976. Economics of Development: Empirical Investigations. New York: Harper and Row.

A good general review of economic theory as it applies to economic development issues. This work is particularly strong in its review of

comparative static methods and its discussion of alternative structural forms for the production and consumption functions. Other major topics covered include development equilibrium, intersectoral relationships and resource flows, international trade and growth, and the role of planning.