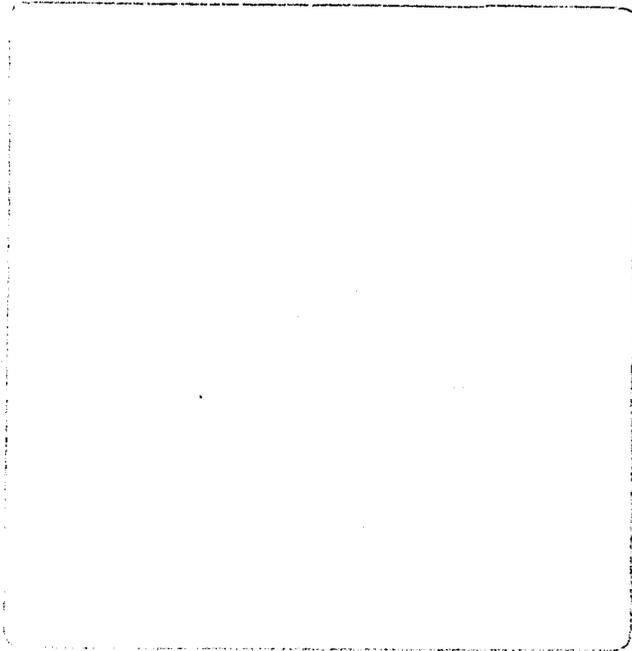


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AGRICULTURAL POLICY ANALYSIS PROJECT

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Assisting AID Missions and Developing Country Governments
to Improve Food and Agricultural Policies

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**RESEARCH THEMES AND
FINDINGS OF THE AGRICULTURAL
POLICY ANALYSIS PROJECT**

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FOREWORD AND ACKNOWLEDGEMENTS

This publication is a major product of Phase One of the Agricultural Policy Analysis Project (APAP) sponsored by the Office of Agriculture in AID's Bureau of Science and Technology. One of the project's ultimate objectives was to disseminate experiences and lessons learned in the area of agricultural policy analysis. Through interaction with policy makers and policy analysts in Africa, Latin America, the Near East, and Asia, APAP focused its technical resources upon the following objectives:

- Developing agendas for an informed mission-host country dialogue on economic policies constraining progress in agriculture;
- Defining food aid strategies and 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; and
- Developing the indigenous capacity of host country institutions to provide the information needed to analyze, formulate, and implement policies conducive to agricultural development.

These objectives led to the development of five thematic research areas. This volume is an adaptation of a collection of technical papers produced for the first phase of APAP, during the 1983-1988 period, presenting the project's main findings stemming from the central analytic themes. Each chapter was written by a different team of authors, all of whom were involved in implementing the many strategies and activities of the APAP effort. The chapters and their respective authors are:

The Agricultural Policy Inventory --
A Tool for Setting Priorities for
Analysis and Dialogue

Jennifer Bremer-Fox,
John S. Tilney, Jr.,
Leroy Quance,
Samir Zaman

Implementing Agricultural Price
Reform

Steven Block, Luther
Tweeten, Leroy Quance

Privatization of Agricultural
Marketing

Jennifer Bremer-Fox

Food Aid and Policy Reform

Steven Block, Jennifer
Bremer-Fox, Charles E.
Hanrahan

Building Institutional Capacity
for Policy Analysis and Planning

John S. Tilney, Jr.,
Steven Block

Particular credit goes to Steven Block who both summarized the findings within and across chapters in the Executive Summary, and adapted the technical papers to enable a cross-theme presentation. In addition, the approach to this volume was conceptualized and structured by Leroy Quance, John Tilney, and Charles Hanrahan, all of whom also authored some of the technical papers presented herein.

We would like to thank Dr. Philip Church, AID's original APAP Project Officer for his thoughts, assistance, and support in developing the theme areas and research during much of APAP's first phase. We would also like to thank Dr. William R. Goodwin who replaced Dr. Church as AID's APAP Project Officer, for his support and thoughtful assistance during the final year of APAP, Phase I, and for his guidance in APAP, Phase II.

ABSTRACT

As part of a major evolution in the role of policy in economic development over the last two decades, the United States Agency for International Development (USAID) launched the Agricultural Policy Analysis Project (APAP) in 1983 to assist AID missions and host governments cope with policy constraints affecting agricultural and rural development. Now, at the close of the first five year project phase (APAP I), the project has assisted 26 country missions and three bureaus in analyzing current needs and options for policy reform, and in developing institutional capacity for conducting agricultural policy analysis. This report summarizes these country and bureau experiences as well as several "worldwide activities", including a comparative analysis of agricultural policy analysis projects; policy analysis guidelines; training courses, workshops and seminars; microcomputer tools and other methods for policy analysis; and a computerized roster of international consultants specializing in agricultural policy analysis in developing countries. And finally, the study outlines the changing policy setting in developing countries and plans for the next, five year phase of the Agricultural Policy Analysis Project (APAP II).

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EXECUTIVE SUMMARY

by Steven Block

This volume is a collection of technical papers produced for the first phase of the AID-sponsored Agricultural Policy Analysis Project (APAP). These papers present the project's main findings on its central analytical themes: implementing agricultural price reform; expanding the role of the private sector; using food aid to support economic policy reform; and, building host country institutional capacity to conduct agricultural policy analysis. APAP also developed a methodology for inventorying policies affecting agriculture, which is described briefly in the second chapter.

These themes evolved during the first two years of the first phase of the five-year project in response to the types of technical assistance requested by USAID missions around the world. Further experience confirmed that these themes were among the primary challenges confronting agricultural policy analysts in the late 1980s. The papers collected in this volume synthesize APAP's technical experience with these issues. Each paper presents a theoretical framework for analyzing the issues, as well as several brief case studies relating APAP's field experience with each topic.

The Agricultural Policy Inventory

APAP developed the agricultural policy inventory as a tool to assist in identifying priority areas for agricultural policy reform. Such a methodology is particularly appropriate for this period in which host country governments and donor agencies have been shifting their attention to a critical review of agricultural policies. The policy inventory provides a quick, economical, and accurate means of diagnosing the agricultural implications of a broad range of economic policies. Macroeconomic policies are of special interest in this regard, since such policies often exert a profound effect on agriculture (though they are rarely designed with agricultural objectives specifically in mind). The policy inventory methodology was critical in APAP's identification of the central themes presented in this volume. Chapter II provides an overview of the policy inventory methodology. It describes the main elements of an inventory, and briefly outlines the implications of a policy inventory for donor assistance strategies and agricultural sector projects.

Agricultural price policy analysis serves as the common language of the chapters in this volume. Price policy is the explicit topic of chapter III, and it pervades the analysis in the following chapters.

Agricultural Price Policy Reform

The role of prices in agricultural policy reform is the central topic of this volume. Agricultural prices simultaneously signal producers as to how to allocate the vast resources devoted to agricultural production, and signal consumers as to the quantity and types of food they can eat. Agricultural prices are thus a pervasive element in the economic and social policies of most developing countries. This dual role for agricultural prices leads to a fundamental conflict for agricultural price policy reform: prices play a major role in motivating the dynamic and efficient agricultural development necessary for economic growth; yet, the price incentive necessary to stimulate increased production may also require higher retail food prices. Such increases directly threaten the nutritional welfare and real income of net consumers.

APAP's experience confirmed that many developing countries' governments have neglected the role of agricultural prices in stimulating economic growth, seeking instead to use agricultural price policy exclusively as a tool to promote social and political objectives. Such policies have entailed heavy public intervention in agricultural markets, often to the detriment of the governments' stated objectives. The objective of agricultural price policy reform is to redress that imbalance between public sector and private sector initiatives.

Chapter III provides several examples of APAP's assistance to USAID missions and host governments confronted with specific price policy reform issues. Two issues addressed in Jordan included import restrictions and regulated retail marketing margins for certain fruits and vegetables. A classical welfare analysis revealed that the import restrictions imposed costs on consumers that exceeded the gains to producers and the government, resulting in a net social welfare loss. Moreover, the true costs of retail marketing were found to exceed the regulated margin. The result was a single market price for given commodities, regardless of quality. This eliminated incentives for Jordanian farmers to improve the quality of their fruits and vegetables. Sharing the results of this analysis with Jordanian policymakers has helped to ease their resistance to price policy reform and has contributed to a gradual deregulation of these markets.

In Bangladesh, APAP addressed the issue of **consumer food subsidies**. Chronic and widespread malnutrition in Bangladesh had led to the adoption of widespread consumer food price subsidies. This system included interventions ranging from open market sales of commodities to moderate upward price shocks to an extensive network of ration shops, where target population groups could purchase fixed quantities at below-market prices. APAP found that despite the substantial resource commitment to consumer subsidies, the poorest consumers benefitted least from the system, while politically important groups benefitted the most.

Taking account of the highly political nature of the subsidy program, APAP advisors saw little scope for success in the World Bank's push to eliminate the entire subsidy system. Instead, APAP saw the priority as being to shift rations to the rural poor in a politically possible manner. Our study recommended gradually raising the ration prices targeted to non-poor consumers towards market prices and shifting the commodity composition of rations towards less-preferred grains. APAP also suggested mechanisms to improve the targeting of subsidies to the rural poor.

In general, APAP found that reform strategies that are sensitive to both the political and the economic tradeoffs are more likely to gain support from host country governments than are draconian measures oriented solely towards promoting efficiency. In implementing price policy reforms, APAP's experience suggest that governments should: (1) gain an understanding of the need for, and commitment to, price reform; (2) develop the ability and commitment to analyze all important ramifications of price reform options and continually monitor and evaluate structure adjustments, and (3) take appropriate, sometimes small, steps of corrective action, each building on the previous, in moving the food and agricultural complexes toward a reasonable balance between the price-setting role of open markets and price-stabilizing policy intervention.

Policy interventions and relative price relationships at the producer, marketing, processing, domestic consumer and world market levels must be carefully considered and managed as an integrated system so that reforms at one level do not cause unforeseen difficulties at another. Moreover, agricultural price policy reform efforts must be coordinated very closely with macroeconomic policy reform and debt management. Such macroeconomic adjustments can easily overshadow agricultural sector price reforms. Concurrent with price reform, governments should examine the growth enhancing needs of education, health, transportation, communications and other infrastructure as well as investment in natural resources, research and extension.

In different ways, each of the chapters in this volume address the question of how to resolve these tradeoffs. Chapter III provides a theoretical framework for understanding the tradeoffs inherent in seeking multiple objectives with limited resources and relatively few policy tools. Chapters IV and V use the language of price policy analysis to describe the roles of privatization and food aid in promoting economic policy reform.

Privatization of Agricultural Marketing

Chapter IV discusses the privatization of agricultural marketing activities. Governments in developing countries often intervene in agricultural markets to achieve one (or both) of two purposes: to protect or subsidize consumer incomes by ensuring low prices to urban food buyers, or to earn revenue for the government itself by taxing farmers' sales of export commodities (though protection of farmers' incomes often receives nominal support). With few exceptions, however, the result of public marketing interventions has been farm-gate prices maintained well below world market-equivalent prices. Similar public interventions are also common in agricultural input markets. Such interventions often operate in place of private markets, rather than through market mechanisms.

Public intervention in agricultural marketing activities can be a major impediment to increasing agricultural production, resulting in below-market prices and undermining farmer incentives. Input subsidy programs also can reduce the availability of inputs, placing a heavy burden on government budgets and inhibiting the policy flexibility needed to respond to changing farmer needs and market conditions. More generally, such interventions impede the development of competing private sector marketing institutions, an important ingredient for agricultural growth.

Concern with the negative impacts of government market interventions in developing countries has caused governments and donors alike to include market reform measures in policy reform programs in countries from Antigua to Zambia. Frequently, such reforms are closely linked to price reform measures, given the central role of government marketing institutions in implementing price control systems. While specific reforms have varied widely across countries, a greater reliance on market determination of prices and on private sector market institutions are elements common to the majority of such programs.

"Privatization" as discussed in chapter IV refers to an increase in the private sector's role in domestic and international markets for agricultural products and inputs, shifting primary responsibility for agricultural marketing from public to private institutions. Privatization thus includes programs that transfer functions to the private sector, divest public institutions to private owners, and/or liberalize market rules to give freer rein to market forces. Chapter IV concentrates on practical issues surrounding the difficult transition from market domination by a parastatal to a system based on private market institutions.

The privatization of domestic grain trade in Mali illustrates several of these points. Prior to reforms in Mali, all private grain trade (both domestic and for export) was illegal; private grain imports required a license. The sole legal trader in Malian grain markets was a parastatal organization, OPAM. The role of OPAM became problematic in the context of a multi-year reform program oriented toward the liberalization of cereals markets. Reducing the budgetary cost of OPAM was an explicit goal of the reform program.

The challenge in determining the appropriate scale for OPAM lay in OPAM's dual role of regulator of domestic producer grain markets and as an implementing agency for disaster relief. OPAM's costs soared during the reform period as a result of larger-than-anticipated purchases in a good crop year. This development slowed, but did not halt the rationalization of OPAM costs. However, a drought the following year increased demands on OPAM, virtually halting the privatization process.

APAP's experience with OPAM and Malian cereals market reform yielded three lessons. The first is that changes in domestic and/or international market conditions are likely to have a major effect on reform progress. This makes flexible benchmarks a necessity. The second lesson pertained to potential conflicts between non-commercial functions and reform objectives. When a parastatal performs both commercial and non-commercial functions (e.g., both marketing and relief), the privatization of commercial functions may be inconsistent with an overall rationalization of operating losses. The third point to emerge from the Mali experience was that technical differences between the various market environments in which a parastatal operates (differences between the relatively open market for coarse grains and the parastatal-dominated market for rice in Mali, for example) greatly affects the feasibility of privatizing different parts of the parastatal's operations.

Chapter IV also draws lessons regarding privatization from APAP's experience with the privatization of fertilizer distribution in Egypt and from the liberalization of grain exports in Togo.

Several general lessons emerge from the discussion of privatization. The first is that divestiture is only one of many options, and is not necessarily the best one. The fate of a particular parastatal organization may become peripheral, once the privatization program goal is defined as the establishment of competitive and effective agricultural markets.

A second lesson is that policy and non-policy measures to strengthen private marketing channels are often a necessary accompaniment to measures aimed at limiting the government's role in the market. Private firms emerging in an environment long dominated by public intervention may require public assistance in order to gain the capacity necessary to replace the public sector.

A third lesson is that not all government intervention in agricultural markets is inappropriate. Mechanisms must be found to continue legitimate public functions after privatization has occurred. For certain legitimate public purposes (e.g., targeted food subsidies for the poor), private entities may be inadequate.

Two broad guidelines deserve emphasis with regard to the design of privatization programs: 1) successful privatization requires a thorough understanding of the specific market structure in which the reform will go forward; and 2) the timing of reform is a delicate but extremely important factor which can be greatly affected by unforeseen changes in market and political conditions.

The discussion in chapter IV also reveals that many of the effects of public intervention and privatization are felt through their effects on agricultural prices. This is also the case with food aid.

Food Aid and Policy Reform

As noted above, the use of development assistance to promote desired policy reform in developing countries is becoming an increasingly important form of foreign aid. The World Bank has increased its volume of lending for policy reform and structural adjustment, and AID is providing additional support for broad sectoral development programs and for policy reform. While most such support for policy change takes the form of financial assistance, food aid (especially from the U.S.) is also being used to promote policy change in a number of countries. Chapter V explores how food aid can be used in

policy-based development assistance, U.S. food aid programs that can be used to support policy change, and APAP experience in Africa and Asia in examining the practice of using food aid to promote policy reform.

Economic reform programs typically call for a dramatic reshaping of a country's price environment, including: relatively high foreign exchange rates (achieved by devaluing local currency); relatively high interest rates; relatively low wage rates; and relatively high food prices. Such reforms cut directly to the heart of the price policy dilemma described above. For poor consumers, the short-term consequences of these price changes can mean lower wages and higher food prices. This double hit on real incomes can have severe consequences for their nutritional welfare and standard of living. In the absence of compensatory measures, increased hunger among the poor (particularly landless labor and urban net consumers) is virtually inevitable. Yet, long-run economic growth may be impossible without such reforms.

Chapter V presents food aid as a means of easing this dilemma, thereby facilitating the reform process. Food aid can provide the resources necessary to separate producer and consumer prices during an adjustment period during which reforms are phased in, as well as resources for investment in rural productivity.

Combinations of these resources played a vital role in facilitating the cereals market reforms in Mali, described above. Donors made a multi-year commitment of food aid (primarily grain) to support the reform. The imported food was sold by OPAM (the cereals parastatal) to generate funds to underwrite the reform process. During the first three years of the reform, the funds were used almost entirely to cover OPAM's operating deficit. The reform increased this deficit due to the growing gaps between the farm price (which was raised annually to improve farmer incentives) and the consumer price (which was not raised at all). When the consumer price was finally increased, food aid monies were redirected to finance the government's post-harvest buying campaign in order to shore up the support price.

The most important lesson to emerge from APAP's experience with food aid and economic reform in Mali is that food aid is a more useful tool for reform during periods of shortage than in times of surplus. During the drought years, food aid was instrumental in convincing the Malian Government to liberalize private grain markets. Yet, it was also clear that food aid alone would not permit the government to sustain producer prices or to transform the rice-producing parastatals into economically solvent operations.

The case of Guinea demonstrates the applicability of food aid to macroeconomic policy reform. Since the death in 1984 of its first President, Ahmed Sekou Toure, Guinea has embarked on a period of profound economic reform. In contrast to the heavily planned and state managed economy of the Sekou Toure period, the Government of Guinea (GOG) has in recent years been a ready participant in donor-sponsored policy reform programs.

Guinea, which usually imports approximately one-third of its total rice consumption, has also been a large recipient of U.S. food aid, primarily rice. USAID has explored the potential for using this food aid to leverage macroeconomic policy reform in Guinea. The fact that Guinea, in conjunction with the World Bank and the IMF would be undertaking macroeconomic reforms even in the absence of U.S. food aid makes it difficult to attribute great leverage to the food aid. One can say, however, that the existence of food aid has facilitated the GOG's reform efforts by providing the assurance that consumer prices for the basic staple food would not soar as producer price ceilings were lifted. The food aid program also gives USAID/Conakry a voice in the current agricultural policy dialogue, and provides both foreign exchange support (through import savings) and local currency resources necessary to finance some necessary reforms and investments.

Despite these potential advantages, in general, food aid is not found to be a panacea for development. Several problems associated with food aid's use to support economic reform include: the inflexibility of food aid levels in response to changing policy conditions as a result of the political nature of food aid allocations; the dependence of food aid's value as a policy lever on local production conditions; potential disincentive effects on local production; and, the fact that resources other than food are often needed to carry out reform programs.

Chapter V finds that while food aid can facilitate broad macroeconomic reform by helping to protect vulnerable groups, it is most effective when directed specifically to support agricultural price reform, which is often a component of broad reform programs. Food aid is not a perfect substitute for financial resources for promoting reform, and it has both advantages and disadvantages which must be considered in designing a reform program.

The primary applications of food aid to support policy reform are found to lie in interventions to raise producer prices, to reduce the impact of high consumer prices, and to stabilize prices. Food aid can also support policy reform by providing resources to fund studies, collect data, and finance investments in infrastructure. The first two of

these uses go hand in hand: food aid provides resources with which governments can temporarily separate producer and consumer prices, thus easing the food price policy dilemma outlined above. Yet, on both the producer and the consumer sides of the market, food aid is not useful in efforts to redirect fundamental market forces that may result in low producer or high consumer prices.

With regard to price stabilization, APAP's experience suggests that food aid is most useful as a protection against sharp fluctuations in prices caused by crop failure. In countries as diverse as Mali and Bangladesh, food aid has been used to constitute a buffer stock for release in times of shortage. If it substitutes for commercial imports, food aid can also help to buffer consumer prices and foreign exchange accounts from fluctuations caused by drastic shifts in international food prices. However, food aid is less appropriate as a counter to intra-year price variability, as it is difficult to manage the operation in a way that does not discourage private traders from making investments in storage. Donors can ease the problems associated with intra-year price variability by ensuring that food aid shipments do not arrive in the post-harvest period. Except in emergency situations, food aid is probably inappropriate as a tool for multi-year price stabilization.

Building Institutional Capacity

The topics described above cover a broad range of agricultural policy reform issues. A clear understanding of these issues within the development community is essential for effective assistance in this area. Yet, in the long run, responsibility for the maintenance of policy reform initiatives lies with host country governments. Recognizing this, APAP devoted considerable resources to studying and evaluating strategies to build institutional capacity for agricultural policy analysis and planning in developing countries.

Our conclusions combine the results from two separate approaches. The first approach was to summarize the findings of two earlier APAP studies in which large sets of policy and planning projects were compared in terms of their goals and effectiveness. The second approach was to select a group of particularly relevant projects as case studies and, where possible, to visit those projects to examine their design, implementation, and impacts. The country case studies include: Egypt, Sri Lanka, Indonesia, Peru, the Dominican Republic, Niger, Zambia, and Cameroon. The projects were either partially or entirely designed to strengthen institutional capacity in agricultural policy analysis and planning.

In general, the examined projects sought to enhance the capacity of host country governments to undertake agricultural policy analysis. The projects were four to ten years in length, with budgets ranging from \$700,000 to \$20,000,000. Most often, a team of expatriate advisors was stationed in relevant ministries in order to provide formal and on-the-job training of counterparts, as well as to manage and produce technical studies to support policy reform. The projects often included short-term technical support, and in some cases also included large-scale overseas training components for host country analysts.

The smallest of the projects examined was the development of Sri Lanka's National Agricultural, Food and Nutrition Strategy. The Sri Lankan agricultural policy environment was a complex network of numerous ministries, semi-autonomous agencies, and development authorities. Responsibility for agricultural policy formation in this environment was quite diffuse. In 1982, the Government of Sri Lanka, with the support of USAID and the Government of the Netherlands, decided on a comprehensive effort to address these problems. It initiated a long-range policy analysis effort -- the National Agriculture, Food, and Nutrition Strategy -- to produce consistent policies and programs across the agricultural sector. The main donor input to this project was a resident advisor, who worked for three years with the Ministry of Planning and Finance to coordinate the activities of the diverse participating agencies. The other projects examined were significantly more complex and ambitious.

APAP's analysis of these projects yielded numerous lessons regarding the design and implementation of agricultural policy and planning projects. The design lessons pertained to the institutional location of assistance, the type of contractor, the size and length of the projects, and training. One of the most salient lessons pertained to institutional location.

APAP's analysis suggests that there is a tradeoff between building institutional capacity and affecting short-run policy reform. If the primary objective of a project is to increase an agency's institutional capacity to perform specific line functions, it is sensible to place the assistance directly in the unit responsible for those functions. However, such units are rarely involved in policy formation. The closer a technical assistance unit is to senior policymakers, the more likely that unit is to influence policy. Yet, such units are also more vulnerable to personnel changes among decisionmakers -- a common event in many countries.

There is no clear lesson regarding the type of contractor (i.e., private firms, universities, U.S. government agencies) in the sense that one type is sure to bring success and another, sure disaster. Yet, APAP experience suggests that certain types of contractors are more appropriate in certain circumstances. For example, university contractors tended to be better equipped to run overseas training programs, but also tended to fall short of private firms in terms of project management capability. Similarly, there is no strong correlation between a project's effectiveness in building institutional capacity and its duration or budget. Indeed, the two longest projects examined were the least effective. The most important lesson with regard to training was that it is not sufficient simply to train people. There must be a commitment in the host agency to make optimal use of those new skills and not to bury trainees under a mountain of bureaucratic responsibilities.

Implementation lessons pertained to general project management, as well as to implementing institution-building, policy reform, and training activities. With regard to project management, the APAP analysis found that: 1) the Chief of Party (COP) must be empowered to make necessary decisions in the field; 2) the COP's terms of reference must be clear and accepted by all parties; and 3) there must be adequate administrative staff support to enable the COP to play a technical leadership role, rather than to be continually tending to administrative details. These problems were particularly acute in Cameroon and Zambia.

In implementing policy reform activities, the APAP analysis found such factors as the credibility of technical advisors among host agency staff, and the continuity of staff (both on the host agency and expatriate sides) to be critical. It is also the case that technical studies are more likely to affect policy if they respond to a perceived need of decisionmakers, and if they make comprehensibility a higher priority than technical sophistication. Training programs often contributed to project successes, particularly when appropriate criteria were used in selecting candidates.

In general, chapter VI finds that the effectiveness of policy and planning projects has improved significantly over time, largely due to a combination of accumulated USAID experience and to a growing awareness among donors and host country governments of the importance of policy. Despite these improvements, however, chapter VI finds that the challenge remains for USAID and other donors to develop an institutional process for policy analysis that is both sustainable and closely integrated into host country decisionmaking.

CHAPTER I

INTRODUCTION

1.0 THE AGRICULTURAL POLICY ANALYSIS PROJECT: AID RATIONALE AND POLICY THEMES

After more than a decade in which project assistance dominated its agricultural development assistance programs, the Agency for International Development (AID) turned its attention, in the early 1980s, to the constraint on agricultural development and food production imposed by inappropriate agricultural and economic policies. It became increasingly clear over the 1973-1983 period that pricing, marketing, trade and exchange rate policies of many AID-assisted countries discouraged food production, impeded agricultural development, and lessened food security. Such policies were often a major reason for the failure of development projects to achieve goals and purposes. "Policy dialogue" became the watchword for AID missions and host country governments as they discussed and negotiated policy reforms to promote food production, improve rural incomes, increase food security and transform agriculture into an engine for general economic growth.

To assist AID missions and host governments cope with policy constraints affecting agricultural and rural development, AID launched the Agricultural Policy Analysis Project (APAP) in 1983.¹ From the beginning, APAP's emphasis was to equip decisionmakers in AID missions and host governments to deal more effectively with policy issues and their constraining effects on agricultural and rural development. APAP was to accomplish this by assisting AID missions in conducting policy analyses and helping to institutionalize the policy analysis process in host countries by increasing analytical capacity and fostering demand for policy analysis by host country decisionmakers.

To enable USAID missions to improve their participation in policy dialogue, APAP included a number of activities "worldwide in scope." These activities include a comparative evaluation of AID-funded agricultural policy and planning projects, guidelines for assisting agricultural development officers in AID missions to participate in policy dialogue, detailed guidelines for conducting agricultural policy analysis, and a roster of agricultural policy analysts that AID missions can draw on for assistance.

¹AID Contract No. DAN-4084-C-3087-00 was signed by AID and Abt Associates, Inc. in September of 1983. Robert R. Nathan Associates, Inc., Abel, Daft and Earley, Inc., and Oklahoma State University joined Abt Associates, Inc. as subcontractors in implementing APAP.

Two kinds of technical assistance provide the major vehicle for supporting field missions' policy analysis efforts and for institutionalizing policy analysis capacity in host governments: 1) direct policy analysis technical assistance to AID missions or host governments, and 2) technical assistance in designing and evaluating policy analysis projects. Training is another vehicle for supporting country-level policy analysis. Short courses on policy analysis, mathematical programming, on the use of microcomputers served APAP as the basic training mode. Other types of training included the country policy analysis workshop and regional conferences. Country workshops related to the analysis of specific policy issues and regional conferences were usually of a "networking" nature.

The papers collected in this volume present APAP's primary technical findings. One chapter is devoted to each of the APAP themes. Each chapter presents an analytical framework for understanding the relevant issues, and relates specific APAP field experiences. These brief case studies illustrate aspects of each topic, though they share a strong emphasis on the implementation of policy reform.

Chapter II describes the policy inventory methodology, a tool developed by APAP to facilitate rapid and comprehensive diagnoses of the policy environment affecting agriculture. This methodology was useful in identifying the project's themes, each of which is treated in a subsequent chapter. Chapter III provides a broad discussion of agricultural price policy reform. That discussion, in turn, provides an analytical background for the following two chapters. Chapter IV describes APAP's experience and findings regarding the privatization of agricultural marketing; Chapter V examines the role of food aid in economic policy reform programs. The final chapter presents the main findings of APAP's comparative evaluation of USAID-funded agricultural policy and planning projects.

CHAPTER II

THE AGRICULTURAL POLICY INVENTORY - A TOOL FOR SETTING PRIORITIES FOR ANALYSIS AND DIALOGUE ¹

By

Jennifer Bremer-Fox, John Tilney, Leroy Quance and Samir Zaman

2.0 INTRODUCTION

Public policies toward agriculture directly determine the level of resources available to the food and agricultural sector and guide producers' and consumers' decisions as to how to employ these resources. In fact, many macroeconomic policy settings, such as foreign exchange rates and wage rates, have profound effects on agriculture even though such policies are rarely set with agriculture in mind.

As host country governments and international donors continue to shift their attention to a critical review of agricultural policies (as opposed to their earlier focus on projects) it becomes increasingly important that they be able to diagnose quickly and accurately the specific policies on which to focus their attention. APAP has addressed this problem by developing a technique -- the agricultural policy inventory -- to identify the primary areas for policy reform and to indicate the desirable directions of change.

The policy inventory was first tested as part of an APAP review of agricultural policy problems in El Salvador in 1984. It was subsequently used to explore policy problems in countries as diverse as Guatemala, Senegal, Indonesia, and Zaire; and was adapted to look at the impact of policies on small rural enterprises and to examine policy impacts on women in agriculture.

Developing country and donor decisionmakers need information for determining the importance of agricultural policy reform within the country's overall development strategy and the donor's assistance strategy. The policy inventory can meet this need by providing a bird's eye view of current agricultural policies and their interactive role in sectoral development. A policy inventory can provide rapid answers to three key questions:

- Do current national policies promote or hinder agricultural development?

¹Originally issued as APAP Staff Paper No. 24, August, 1988.

- Which policies in the agricultural sector and the economy at large should have priority for reform, given their expected or estimated impact on the agricultural economy?
- What policy impacts on production, income levels, trade, government revenues, etc. should be considered in evaluating possible reforms?

The policy inventory is particularly useful for generating critical information for planning and programming agricultural policy reform. Examining existing policies affecting agriculture with regard to their influence on production, distribution and government budget, can be used to:

- Support policy dialogue, both within the government and between government and donors;
- Outline the general causal relationships between major technical and socioeconomic forces in agricultural development and policy interventions;
- Estimate impacts of existing policies on donor-funded projects and other sector development activities;
- Guide selection of issues for further data collection and analysis;
- Determine the broad outlines of a policy reform program, if such a program is needed; and
- Monitor overall developments in the agricultural policy environment.

The policy inventory can generate information to serve these diverse purposes rapidly and with only modest analytic resources. An inventory thus provides a framework for organizing information about intersectoral linkages, policy options, and subjective evaluation of policy impacts sufficient at least for setting priorities for further, more in-depth policy analysis.

2.1 ELEMENTS OF THE POLICY INVENTORY TECHNIQUE

A policy inventory consists of the following four basic elements, although these are generally supplemented with additional analysis and follow-up activities:

- A summary **description** of major technical, economic, social and political causal relationships in the agricultural sector and its major linkages to the national and world economies;

- An **overview** of recent sector performance based on available data to determine whether agricultural production and incomes are growing at acceptable rates and to identify major sector strengths and weaknesses;
- A **listing** of major policies affecting agriculture, including both macroeconomic policies (fiscal, monetary, etc.) and sector-specific policies (prices, taxes and subsidies, etc.); and
- An **assessment** of policy impacts to determine whether policies are a major constraint, and if so, which policies have the greatest negative impact on growth and development in the agricultural sector and on the economy as a whole.

The breadth and depth of analysis in each of these three areas is determined by available information, time and analytic resources. In El Salvador, for example, policy impacts were assessed based primarily on professional judgement of the technical assistance team, which had extensive experience in agricultural development in the region. Economic theory and analysis of similar circumstances in other countries provide insights that are often transferable to new but similar situations. If resources are available, it is preferable to base this assessment on rigorous quantitative analysis. The use of such analytic capability however, goes beyond what is normally referred to as a policy inventory.

2.2 THE IMPLICATIONS OF A POLICY INVENTORY FOR DONOR ASSISTANCE PROGRAMMING AND POLICY DIALOGUE

2.2.1 Implications for Donor Assistance Strategies

The principal purpose of conducting a policy inventory is to answer two basic questions regarding policies affecting the agricultural sector:

- Are existing policies a serious constraint to growth in production and incomes in rural sectors?
- Which policies or policy mix should receive priority for future analysis, dialogue, and reform?

Answers to these two questions can guide donor decisions regarding the overall technical assistance strategy. The inventory provides information to support six basic decisions regarding the role of policy and policy reform in the donor assistance strategy.

- Based on the importance of policy as a constraint to development, should policy reform play a major role in the donor assistance strategy?

- Which areas should be emphasized in short-term analysis of the impact of existing policies and possible alternatives?
- How much importance should be given to impacts on agriculture in formulating the donor's activities in the areas of macroeconomic reform and policy dialogue?
- Are existing policies likely to have a major distorting or inhibiting effect on the donor's current assistance program goals for agriculture?
- Is there a serious need to improve in-country analytic capabilities and which institutions and problem areas deserve priority if such and effort were undertaken?
- If policy problems are to be addressed directly in the donor assistance strategy, would project or program assistance (or both) be most appropriate for tackling priority policy problems?

If one or more policies are identified as a major constraint, it does not necessarily follow that policy reform or improvements to institutional analytic capabilities should be incorporated in the donor's assistance strategy. A host of factors underpin the areas emphasized by a donor agency in a particular country and no donor can address all problem areas simultaneously. Promoting policy reform is also highly dependent on host government support, even more than on other donor assistance efforts, and the environment may not be suitable for a major push on agricultural policy reform.

Whether or not the donor agency chooses to emphasize policy reform in its agricultural assistance strategy, findings of a policy inventory may have a positive impact on the donor's strategy in two ways. First, the inventory can identify critical weaknesses in the in-country ability to identify and to act on policy problems. For a number of reasons it may be preferable to tackle these ability limitations when policy problems are less pressing.

Second, the inventory may identify policies likely to have serious negative impacts on planned assistance to the agricultural sector. For example, a project to promote non-traditional agricultural exports could be severely hampered by an over-valued exchange rate or over-regulation of private trading companies. While such barriers should normally be identified during the project design, they may not have been because the design focused on other issues (e.g., market information), because the project design is still in the early stages, or because the policy problem arose after the project implementation began and had not been flagged as an issue.

2.2.2 Implications for Agricultural Sector Projects

The policy inventory has clear implications for designing policy projects. Indeed, the inventory itself may be a useful adjunct to the project design effort, in order to identify appropriate analytic objectives. The inventory can also generate data on the availability of information and the overall capability of in-country analytic institutions, both highly useful in designing a policy project. Finally, the inventory can provide insights into whether the host government is receptive to policy analysis and possible policy reform, thus supporting the go/no-go decision early in the project life cycle.

Equally important, the inventory generates information on policy problems that distort incentives in the agricultural sector and therefore may have significant negative consequences for designing non-policy projects. These consequences are of two types:

- Distortions that make project-supported activities **artificially unattractive**, such as pricing policies that reduce the profitability of crop and livestock products (the production of which is to be promoted by the project), and trade policies that reduce the profitability of export crops, and.
- Distortions that make project-supported activities **artificially attractive**: pricing policies that increase the profitability of activities supported by the project (or, equally possible, reduce the profitability of competitive activities), and inappropriate subsidies on credit or inputs.

If current policies are likely to reduce the chances of project success, the project design must determine whether policy reform is a necessary precondition to project success and if so, how this problem is to be addressed. If current policies provide an artificial cost to project-supported activities, the project design must consider whether the activities would be appropriate in a reformed policy environment and whether AID should proceed in the face of the existing policy distortions or wait for the impact of possible reforms to be clarified.

2.3 SUMMARY

The policy inventory is an important tool developed by APAP for generating information to support donor and host government dialogue, programming, and planning for the agricultural sector. The policy inventory consists of four basic elements -- a summary of the technical, economic, social and political causal relationship in the agricultural sector and their linkages with the national and world economies; an overview of recent sector performance; a listing of major policies affecting agriculture; and an assessment of policy impacts. Policies are presented in a concise manner, listing, in

descending order, a description of macroeconomic, sectoral and subsectoral policies. For each such policy, implementing agencies, impacts on selected performance indicators, and recommendations of alternative policies provide an overall perspective, serving as a basis for dialogue and further data collection and analysis.

There are several implications of a policy inventory for donor assistance programming and policy reform. It can articulate whether or not current policies are constraints to agricultural development, and indicate which policies should receive priority for reform. An inventory also examines the state of information on policies and policy impacts, thereby identifying needs for further data collection analysis. Moreover, a policy can shed light on the design of policy and non-policy projects.

As a quick response exercise, an inventory's assessment of policy impacts are often based on the professional judgement of the analysis team. Such subjective analysis can only be credible if they are made by analysts with extensive agricultural development experience, including knowledge of the socioeconomic and political dynamics of agricultural policymaking in the particular country. It may be preferable, in the long run, to base policy impact assessments on more rigorous quantitative analysis when resources permit.

During the course of its first five years, APAP used the policy inventory methodology to identify general theme areas for policy research and technical assistance. These priority areas included: the implementation of agricultural price policy reform, the privatization of agricultural marketing activities, the use of food aid to support policy reform, and the development of host country institutional capacity for policy analysis and planning. The remaining chapters in this volume present the results of APAP's research and field experience in each of these theme areas.

CHAPTER III

IMPLEMENTING AGRICULTURAL PRICE REFORM¹

By

Steven Block, Luther Tweeten and Leroy Quance

3.0 INTRODUCTION

Agriculture dominates the economies of most developing countries. Agriculture-related activities are often the primary source of income for three-quarters of a country's population, and the sector typically accounts for over one-third of GDP. Agriculture also dominates the expenditures of most people in developing countries, often accounting for up to 70 percent of the expenses of poor families. In this broad context, agricultural prices simultaneously signal producers as to how to allocate the vast resources devoted to agricultural production, and signal consumers as to the quantity and types of food they can afford to eat. Agricultural prices are thus a pervasive element in the economic and social policies of most developing countries.

This dual role for agricultural prices leads to a fundamental conflict for agricultural price policy: prices play a major role in motivating the dynamic and efficient development necessary for economic growth, yet, the incentive prices needed to stimulate production may also require higher retail food prices. Such increases directly threaten the nutritional welfare and real income of net consumers.

In recent decades, many developing countries' governments have neglected the role of agricultural prices in stimulating economic growth, seeking instead to use agricultural price policy exclusively as a tool to promote social and political objectives. Such policies have entailed heavy public intervention in agricultural markets, often to the detriment of the governments' stated objectives. According to the World Bank, many developing countries pronounce the objective of food self-sufficiency, yet follow policies that tax farmers, subsidize consumers, and increase net food imports.² The objective of agricultural price policy reform is to redress that imbalance between public sector and private sector initiatives.

¹Originally issued as APAP Staff Paper No. 26, August, 1988.

²World Bank, World Development Report, 1986, Oxford University Press for the World Bank, New York, 1986.

Markets are not perfect and, thus, indicative planning and policy interventions are essential in a well-functioning economy. Public involvement is important in providing a macroeconomic environment conducive to making sound, long-term public and private investments, and in providing infrastructure, education, research and extension, grades and standards, environmental protection, health and family planning services, and targeted food and other welfare assistance to the poor (Tweeten, 1987).

Price policy reforms typically seek to limit public intervention in agricultural markets in an effort to reduce the distortion implied by producer taxes and consumer subsidies, as well as to reduce budget deficits arising from consumer and producer subsidies. The ultimate objective of such reforms is to transform agriculture into an engine of economic growth. Yet, such a transformation requires policymakers to alter their view of the agricultural sector as being little more than a source of extractable surplus resources for other uses. The purpose of this chapter is to suggest strategies for implementing price policy reforms which advance that objective without sacrificing the real incomes and nutritional status of the poor. Sound policy analysis is particularly critical in this regard, and the Agricultural Policy Analysis Project has been extensively involved in providing such analysis during the past five years. This chapter briefly relates APAP experience providing technical assistance to several developing countries implementing price policy reforms.

Countries and issues presented in this chapter include producer price interventions in Liberia, input subsidies in Egypt, marketing margins for fruits and vegetables in Jordan, consumer subsidies in Bangladesh, cereals export reform in Togo and macroeconomic policy intervention influencing agricultural price relationships in Guatemala. These experiences reveal not only that markets and prices play a pervasive and powerful role in providing incentives and in allocating resources in agriculture but that interventions in markets can markedly reduce national income. Of course, price policy cannot be isolated from policy goals and management of government interventions in other areas.

We turn to these country experiences after reviewing general agricultural policy goals, alternative instruments for implementing and reforming agricultural price policy, and the tradeoffs between policy goals usually involved with the use of the various policy instruments. Lessons learned and recommendations for improving future USAID technical assistance in implementing price policy reform conclude the chapter.

3.1 AGRICULTURAL SECTOR OBJECTIVES AND PRICE POLICY INTERVENTIONS

3.1.1 Agricultural Prices and the Food Policy Dilemma

Agricultural price policy is one primary tool available to governments to promote agricultural development and food consumption goals. Agricultural prices simultaneously serve two roles: 1) prices signal what quantity of which commodities producers should produce and sell to increase income; and 2) prices determine the quantity and type of food consumers can afford to eat. This dual role lies at the heart of the "growth with equity" debate and the food price dilemma.

To the extent economic growth for most poor countries is tied to agricultural growth, providing price incentives for farmers is essential to economic development. Economic reform programs providing price incentives often increase productivity, adoption of new technologies, and raise rural purchasing power.³ Prices can be too high or too low. In general, the economically efficient domestic price of traded agricultural products is the world (border) price.

Prices are critical short-term determinants of farm input use, production, marketing services and food use. In the long run, food supply is increased most by productivity gains from technological transfers from abroad and research undertaken by the domestic public sector. Here, price policy and public sector growth policy interact in that productivity gains from adoption of improved technology are most rapid in an economy that does not depress agricultural commodity prices by taxes or other market interventions (Tweeten, 1986).

Producer price incentives raising food prices reduce consumers' real net incomes and limit their food consumption choices. For the poorest consumers, higher food prices can turn moderate poverty and malnutrition into severe poverty and hunger. Although long run economic growth creates the possibility for enhanced employment and nutritional security for all, the short-term welfare and distributional consequences of agricultural price reform that increase food prices can be severely detrimental to the poor. This risk increases with the pace of reform, since people have less time to adjust to the changes. The challenge, then, is to design and to implement agricultural price reforms supporting economic growth while preserving or promoting equity and nutritional welfare.

³In addition to increased agricultural prices, reform programs commonly prescribe higher interest rates, lower wages, and currency devaluation as means to correct common economic distortions. As discussed elsewhere, each of these reforms strongly affects the agricultural sector.

3.1.2 Agricultural Policy Objectives

Agricultural policies in developing countries typically have four broad objectives: 1) efficient economic growth, 2) improved income distribution (in part, through employment generation), 3) a nutritional floor for consumers, and 4) food security.⁴ Food prices play a strong role in attaining these objectives.

Efficient resource allocation raises income which may be consumed immediately or saved to invest in human and material capital, providing a low-cost source of future income. Because a large portion of national resources are devoted to agriculture, food price policies play an important role in signaling resource opportunity costs. Food prices also have substantial effects on income distribution between urban and rural sectors (e.g., the urban-rural terms of trade). Food intake, particularly for the poor, is strongly affected by changes in food prices. Thus, efforts to provide a nutritional floor beneath society are inseparable from agricultural price policy. Food security, as a function of price volatility and the balance between traded and domestic commodities, is also influenced by agricultural price policy. Governments frequently use agricultural price policy to intervene in the sector in the pursuit of the four general agricultural policy objectives. But conflicts are inherent in use of agricultural price policy to pursue these multiple objectives.

3.1.3 Common Price Policy Interventions

Government agricultural price policy interventions fall among five broad categories: 1) producer price interventions (input and output), 2) marketing sector interventions, 3) consumer price interventions, 4) international trade policies, and 5) macroeconomic policies that influence general agricultural prices. A range of possible interventions exist within each of these categories. Often governments simultaneously intervene in numerous price domains. These interventions may complement one another or they may conflict.

⁴These objectives are identified in Timmer, Falcon and Pearson (1983). Some countries also place a premium on policies allowing freedom in making production and marketing decisions.

Producer Price Interventions

Producer price policies take two general forms: taxes (or subsidies) on inputs, and taxes (or subsidies) on outputs. Producers' decisions regarding how intensively to cultivate their land depend partly on the ratio of input prices to output prices. Thus, interventions in input and output prices are best considered jointly, although often they are not.

Farm input interventions alter the supply and demand for inputs by producers. Common input price interventions include: taxes (or subsidies) on an input, fixed prices, and price floors and ceilings (defended by direct government purchases and sales of inputs). Subsidies (either explicit or implicit) are the most common form of input price interventions. Such subsidies can take several forms: 1) direct government payments to manufacturers that allow them to charge a price below their costs, 2) subsidized government manufacture of inputs, 3) monopoly sales of inputs by government below market price, 4) rebates to consumers or input purchasers, and 5) overvalued exchange rates constituting an implicit subsidy on imported inputs. A common but rarely achieved objective of these interventions is to offset less-than-optimal input used by producers who are uninformed, risk averse or lethargic. Under proper circumstances, intervention can increase output and productivity and lower unit costs of production.

Output price interventions are the "flip-side" of input price interventions. Indeed, the same basic range of interventions apply. Governments can directly tax or subsidize output prices through direct purchases above market price or tax outputs through forced procurement below market prices. Governments can attempt to fix output prices by fiat; however, parallel markets often arise to circumvent such efforts. For traded outputs, overvalued exchange rates reduce real output prices by artificially lowering the price of competing imported goods and making export of the commodity less competitive in world markets. (Exchange rates are dealt with later in the discussion of macroeconomic linkages.)

In principle, input and output price interventions can be coordinated to increase the farming profitability. Output price supports are often seen as compensation for input taxes or subsidy reductions. It is not uncommon, however, for governments to impose contradictory interventions, subsidizing inputs while taxing outputs, as in the case of Egypt. An input subsidy combined with an output tax leaving farm profit unchanged is almost certain to reduce national income by distorting the input or product mix.

Marketing Sector Intervention

Marketing sector price interventions are also a common element of food policy. Wholesale and retail markets pool supply and demand information to discover price and clear markets. Markets also provide storage, transportation and processing. The price for, or cost of, these basic marketing functions -- the marketing margins -- separate farmgate from retail prices. Government interventions to alter marketing margins have important implications for producers and consumers as well as for traders.

Marketing sector interventions typically take the form of fixed prices for marketing services, setting ceiling and floor prices for those services, subsidizing or taxing marketing functions, and direct performance of marketing functions by the government (either as a monopolist or in competition with private traders). These interventions not only affect the supply and demand for marketing activities, but also alter the commodity price formation process in markets.

One objective of marketing sector interventions is to reduce the conflict between producer and consumer interests by minimizing the margin between farmgate and retail prices. Problems arise from efforts to force those margins below the actual costs of performing marketing functions. Policymakers often fail to recognize that marketing operations are productive activities that require real resources, and that traders require incentives, just as do producers, for services supplied. And efforts to reduce marketing margins by replacing the private sector with parastatals typically raise rather than lower per unit marketing costs.

Consumer Price Interventions

Consumer price interventions take numerous forms, although most share the characteristic of either taxing or subsidizing food consumption. Common forms of consumer price interventions include fixed commodity prices (by fiat), direct subsidies for all consumers of a commodity, targeted subsidies (through ration shops or by subsidizing commodities consumed primarily by the poor), food stamps and direct income transfers to certain consumers. Motivations for these interventions range from humanitarian concerns for hunger and poverty to political calculations of how to garner support of influential groups. In terms of the four general food policy objectives cited above, consumer subsidies are primarily designed to provide a nutritional floor. Consumer subsidies also result from the political power of urban consumers to obtain economic transfers. Whether or not interventions improve income distribution depends on who pays for and receives subsidies.

Problems posed by high costs of general food subsidies are discussed later. Here we only note that once initiated, general food subsidies are politically difficult to eliminate even though other policies may offer more cost-effective means for using limited public funds to reduce malnutrition.

International Trade Interventions and Border Prices

Price interventions involving international trade are pervasive in most countries. Agricultural border prices (c.i.f. for imports, f.o.b. for exports) determine the opportunity cost of domestic output and resources devoted to agriculture. This consideration suggests that to promote efficient resource allocation, the appropriate level of domestic agricultural production is the point at which the value of the domestic resources used to produce the last unit of food equals the cost of importing or exporting an equivalent unit (as signaled by border prices). The border price is the efficient price only if the exchange rate is not overvalued or undervalued. The import price remains the opportunity cost of domestic output even if the commodity is being dumped on world markets at subsidized prices by other countries. However, a country may wish to protect its producers against transitory world price fluctuations whether those fluctuations arise from dumping or other factors such as weather.

Border prices and trade policy provide policymakers a powerful tool for implementing domestic price policy. Typical border price interventions include tariffs and subsidies on goods crossing the border, quantitative restrictions and grades and standards. In principle, consumers will not pay more for domestically produced commodities than the price at which imported commodities are available (assuming no quality distinctions). Thus, subsidizing food imports as a means of providing inexpensive food to consumers lowers the price received by domestic producers and signals them to devote fewer resources to production. By the same token, restricting food imports raises retail prices and domestic producer prices. Restrictions on exports of domestically consumed products can also be effective tools for lowering retail prices, creating economic transfers from producers to consumers. Commercial trade policies present a relatively easily administered tool for implementing domestic price policy for traded goods. Thus, trade policies tempt bias against agriculture -- a frequent occurrence in developing countries.

Strict adherence to border pricing implies free trade. Yet, completely free trade permitting the full volatility of international prices to enter the domestic food economy could increase the food insecurity of poor consumers. Unfortunately, public interventions, such as import controls, to insulate a country from world prices may entail greater aggregate social costs, than the instability they were designed to avert (though specific policy choices have implications for the distribution of those costs among different social groups). Nonetheless, strict border pricing would be complicated by short-term volatility in international prices as well as by distortions in the foreign exchange rates through which international prices are translated into domestic food prices. Thus, any long-term price policies based on border prices should be based on trends in border prices evaluated at shadow exchange rates (see Abel and Beach, 1988).

Macroeconomic Linkages with Agricultural Policy

Macroeconomic linkages with the agricultural economy flow in two directions. Macroeconomic policies strongly condition the agricultural price environment while agricultural price policies influence macroeconomic policies and performance of the national economy. The latter is evident because agriculture accounts for a significant portion of GDP and employment in developing countries.

Agricultural output and food price changes can effect the macroeconomy in several ways. For example, the government budget (the financing of which has important macroeconomic consequences) may be drained by large agricultural subsidies. Similarly, agricultural production and price changes influencing the balance of imports and exports can have important implications for the supply of, and demand for foreign exchange. Higher farm and food prices can reduce demand for non-food goods and services in the economy. Similarly, lower food prices can stimulate demand for a host of other products, both domestic and imported.

Fiscal and monetary policies are rarely set with agriculture in mind or are advised by the Minister of Agriculture. Yet, macroeconomic policies strongly influence agricultural prices, income, productivity and output. As a matter of fiscal policy, government can focus investment to stimulate growth in particular sectors. Similarly, reductions in government investment (whether motivated by deficit reduction or other objective) can reduce public investment in agriculture. Monetary policy can also influence agriculture, particularly as it affects inflation and the supply of credit. The agricultural sector must compete with all other sectors for credit and investment. To the

extent agricultural product prices do not move up with the general price level (including prices for farm living and production items), inflation is an implicit tax on producers. Foreign exchange rates, interest rates, and wage rates are important "macro prices" that influence decisionmaking at every level of the food system (Timmer, Falcon and Pearson, 1983, p. 215).

Policies regarding foreign exchange rates are particularly important for agricultural prices. Overvalued exchange rates, common in developing countries, artificially depress imported food prices. This is similar to a subsidy on imported goods in that it lowers the domestic price against which local producers must compete. Conversely, currency devaluation often increases food prices nearly in proportion to the devaluation. This influences production and consumption decisions as well as foreign exchange reserves, domestic budgets and social unrest. Like other macro-prices, the impacts of exchange rate changes are felt throughout the economy, making them a blunt tool for implementing agricultural price policy. Despite their importance to farmers, exchange rate policies, like monetary and fiscal policies, often are made without regard for their impacts on agriculture.

Interest rates and wage rates also have important implications for the agricultural economy. Interest rates and wage rates reflect the relative costs of capital and labor. These prices influence choices of technique in production and marketing. For example, subsidized interest rates that make capital artificially cheap will shift relative prices to encourage capital-intensive techniques often inappropriate for poor countries. In many developing countries, production and marketing activities (processing in particular) are major sources of employment and income generation. So distortions in interest and wage rates influence employment, efficiency and income distribution not only in production agriculture but also in marketing and indeed throughout the economy.

Employment rates and income levels are important determinants of the nationwide demand for food and other goods and services. Food is also the primary wage good in industrial sectors. Thus, food prices directly influence industrial wage rates. Cheap food helps industry maintain real wage incentives; yet, the resulting low farm income reduces real demand for industrial goods and services.

Other interactions are often evident, such as between inflation and interest rates. To encourage foregoing of current consumption for savings and investment, market interest rates need to cover real interest cost (commonly 10 percent in developing countries) plus the inflation premium. While an incentive to savers and lenders, such

compensation constitutes a hardship to borrowers whose earnings do not rise with inflation and interest rates. While governments often intervene to avoid this hardship by holding down interest rates, a superior strategy is to avoid macroeconomic policies causing inflation.

3.1.4 Tradeoffs Among Agricultural Policy Objectives

Tradeoffs among the four agricultural policy objectives cited above -- economic efficiency, equitable income distribution, nutritional welfare, and food security -- provide a framework for illustrating in greater depth the agricultural policy dilemma with which this chapter began. These objectives also provide a basis for evaluating price policy interventions outlined above.

With regard to the first objective -- promoting efficient domestic resource allocation -- virtually all interventions introduce welfare losses; i.e., motivate inefficiencies in resource allocation that reduce national incomes (Tweeten, 1985). Fertilizer subsidies, for example, are often cited as wasteful because fertilizer's scarcity value is not reflected in its price to producers, who are thus prone to excessive use. The same can be said of other subsidies and taxes, whether in production, marketing, consumption or trade (with the exception of cases in which these interventions correct existing distortions). Thus, if economic efficiency were the only criterion by which to judge price policy interventions, the only acceptable interventions would be those to correct other distortions, including externalities and market failures.

In recent decades, excessive government intervention in agriculture and other markets has severely aggravated the economic situation of several countries (Tweeten, 1987). Although efficiency is one among four objectives, it is especially important because without a "growing pie" there are fewer resources with which to promote other objectives such as equity, stabilization, or nutrition. Thus, policies to foster economic efficiency can also serve other objectives, provided that such policies are conceived and implemented with these multiple objectives in mind.

Promotion of the second objective -- improved income distribution -- often conflicts with efficient resource allocation. Income distribution is relevant to agricultural price policy analysis because equity is an objective in its own right and because income transfers result from changes in food prices. From this perspective, the short-view interests of producers, consumers and taxpayers are in conflict. Higher food prices imply a transfer from consumers or taxpayers to producers; lower food prices imply a transfer

from producers or taxpayers to consumers. This conflict is minimized by employing efficient transfer mechanisms, that is, that minimize national income lost per unit transferred to the intended recipient (Tweeten, 1985).

Policy objectives need not conflict, however. For example, policies to provide stability do not necessarily conflict with economic efficiency. A buffer stock policy providing benefits from storage in excess of storage costs is economically efficient. Sound macroeconomic policies that avoid high interest rates encourage buffer stock storage that stabilizes food prices. Stable farm prices can increase productivity by reducing capital rationing and encouraging technological change. This, in turn, contributes to economies of size in farm production, lower food prices and to the exit of inefficient producers who find better opportunities in the non-farm sector. Public investment in human resources (schooling, health services, etc.) of youth from low-income families can serve economic efficiency and equity (distributive justice) objectives.

Problems arise from the financial and economic costs of price interventions. Direct subsidies can impose severe and sometimes unsustainable burdens on government budgets. Such burdens limit government's ability to invest in productive activities to the detriment of economic growth.

The fact that food production is a primary income source in most developing countries, and that food consumption dominates expenditures of most families, means that food price changes have profound implications for real income transfers. Efforts to use food prices to improve income distribution require knowledge of whether the poor are predominantly producers or consumers, a question that is complicated by the fact that few members of society fall uniquely within one group or another. Landless rural laborers, common in countries such as Bangladesh, are an example of a group whose income derives from production, yet who may be hurt in the short run by food price increases intended to transfer income to producers. Unfortunately, untargeted food price manipulations are not only blunt but are also a relatively expensive means for effecting income transfers.

The third objective -- providing a nutritional floor for all members of society -- is also related to the question of income distribution. Some consumers are at risk of malnutrition or starvation because their incomes are too low or unstable to ensure meeting minimal consumption requirements at all times. Price reform programs that increase food prices can devastate such poor consumers. Recognizing that the poorest consumers are at greatest risk suggests a focused policy response. The consumer price interventions

described above can be either targeted or untargeted. Governments concentrating efforts on the poorest consumers through targeted interventions can minimize unfavorable tradeoffs between efficiency and equity. In fact, efficiency gains from price policy reform may provide more than enough additional national income to compensate those made worse off, though this notion is meaningless if governments do not actively intervene to make this compensation. (Chapter V of this volume explores the use of food aid to promote policy reform.)

The fourth general agricultural policy objective -- food security -- entails appropriate buffer stock policy, avoidance of unnecessary transitory price fluctuations and maintenance of access to international food supplies through trade. Food security, loosely defined, is the protection of a country's food consumption level for all households against shocks to its food system. The principal source of food insecurity are shortfalls in domestic agricultural production and upward shocks in international commodity prices.

Many countries aspire to become self-sufficient in food, largely as a means of protecting domestic food prices from volatility of international markets. Countries thus adopt a variety of border policies including quotas, tariffs, subsidies, and grades and standards to buffer domestic consumers from the instability of external markets. To the extent that such measures remove countries from international markets, the vulnerability of those countries to variability in domestic food production is increased. Thus, food self-sufficiency, particularly if it comes at the expense of foreign exchange-earning activities, is not synonymous with food security. Trade is an essential component of food security; yet, the instability implied by completely free trade may be detrimental to food security.

Food security entails maintaining appropriate terms of trade for farm producers, a balance between imported and domestic commodities to meet food needs using world prices as a general indicator, adequate general economic growth to provide buying power and foreign exchange for food purchases as needed in international markets, and access to an adequate diet for the poor through targeted food assistance. Agricultural price policy (including macroeconomic linkages) is an important determinant of the direction, composition, and quantity of intersectoral migrations, resource transfers, and cross-border trade. Thus, such policy plays an important role in food security.

As noted above, trade policy is a pervasive tool for implementing domestic price policy and, as such, has important implications for each of the four agricultural policy objectives. With respect to economic efficiency, a policy that alters border prices

incurs a welfare loss. Yet, such policies can be effective means of promoting food security, for example, highly volatile international prices would otherwise be passed along entirely to domestic consumers.⁵ Using trade policy to stabilize domestic prices may also help provide a nutritional floor beneath society. Trade policy also has direct implications for income distribution, because wealthier consumers (often urban residents) disproportionately consume imported goods. Thus, restrictions on food imports shift the urban-rural terms of trade and transfer income from urban to rural areas. To the extent that incomes are lower for rural than for urban residents, shifts in the terms of trade in favor of rural areas tends to improve income distribution although, as noted above, this is a blunt tool that harms poor urban consumers.

In short, agricultural price policy is a powerful tool available to governments in their efforts to promote the broad objectives of agricultural policy. Yet, the role of prices as both incentive or restraint on production and consumption and as a distributor of income gives rise to a conflict between long-term dynamic growth in the agricultural sector and the economy as a whole and the short-term income and nutritional requirements of the poor. The combinations of limited economic resources and limited policy tools imposes tradeoffs among food policy objectives.

The challenge for analysts is to devise solutions, analyze tradeoffs, estimate costs and benefits among alternatives, and help policymakers define policies that minimize tradeoffs among competing objectives. The following pages provide selected examples of APAP experience with facilitating reforms in the price policies outlined above.

3.2 APAP EXPERIENCE WITH AGRICULTURAL PRICE POLICY REFORM

This section describes selected examples of the Agricultural Policy Analysis Project's experience in analyzing and facilitating agricultural price policy reforms in countries in each of the major developing regions. Cases presented illustrate examples from each of the five categories of price policy outlined in the previous chapter: (1) producer input subsidies in Egypt; (2) producer output price supports in Liberia; (3) fixed

⁵A policy to stabilize domestic prices at the mean of border prices through a variable import duties and subsidies can increase efficiency. However, many developing countries do not have discipline or administrative capability to avoid either excessively high or excessively low average prices over time.

marketing margins for fruits and vegetables in Jordan; (4) consumer price subsidies in Bangladesh; (5) cereals export reforms in Togo; and (6) macroeconomic linkages with agricultural price policy in Guatemala.

3.2.1 Input Price Subsidies in Egypt⁶

Agricultural Situation

The Government of Egypt (GOE) plays a pervasive role in food and agriculture. It heavily subsidizes prices of basic foods such as bread, controls cropping patterns and crop output prices, and subsidizes inputs such as fertilizer, fuel and irrigation water.

Farmers are increasingly turning to producing livestock commodities and livestock feed such as berseem clover which are in high demand and not controlled by the government. The government receives significant revenues from cotton exports at world prices above prices paid to Egyptian producers, but Egyptian farmers often plant cotton late or harvest it early in favor of a winter or summer crop of berseem and sell fertilizer distributed for cotton on the parallel market or use it in more profitable crops. Thus, Egypt has difficulties in maintaining its natural comparative advantage in producing and exporting cotton lint.

The GOE has initiated agricultural policy reforms but interventions are so widespread, agriculture has been so isolated from market forces, and government bureaucracy has grown so large and unyielding that progress in restoring balanced incentives for agricultural efficiency and growth is slow and difficult.

Fertilizer Price Subsidies and Their Impact

Fertilizer use in Egyptian agriculture has more than quadrupled since 1960. The GOE encouraged this trend in its strategy to raise agricultural production. It invested heavily in new fertilizer factories, developed an extensive system to distribute fertilizer and provides credit to pay for it under the auspices of the Principle Bank for Development and Cooperation (PBDAC). Both fertilizer production and prices farmers pay for fertilizer are highly subsidized.

⁶Summarized from (Bremer-Fox, et. al., 1987).

The official fertilizer distribution system is supplemented by an unofficial parallel market. This market is supplied by farmers reselling PBDAC fertilizers and perhaps by other diversions from the PBDAC system. Prices on the parallel market are usually two to three times the official price. From 26 to 40 percent of PBDAC fertilizer supplies are resold on the parallel market.

Farmers are generally satisfied with the current PBDAC and parallel market system. They have access to fertilizer and credit to purchase it; nearly all farmers use fertilizer and repay their loans. The distribution system does not have excessive costs and fertilizer losses during storage and transport are not high, but the GOE fertilizer policies have become increasingly costly, distort farmer decisionmaking, promote wasteful and inefficient fertilizer use at the farm level, and are inconsistent with the GOE's policy of increasing reliance on the private sector for economic growth.

Policy Reform and APAP Experience

The above concerns motivated the GOE to ask the USAID to have APAP undertake an analysis of the market for nitrogenous fertilizer in Upper Egypt, addressing the related issues of pricing and private sector involvement in fertilizer distribution.

The APAP team, with excellent support from Egyptian analysts, studied the demand for fertilizer by using existing data to estimate the historical and agronomic bases for the fertilizer market. Fertilizer demand was estimated under a range of price and policy scenarios using linear programming. Costs and technical performance in the current system were compared with estimated costs under alternative privatization approaches.

Analysis indicated that the total production and farm income would be reduced by large increases in the fertilizer price unless crop prices were also adjusted. At unsubsidized, factory break-even prices, farmer incomes could fall by as much as 22 percent with no adjustment in crop prices, and grain production could decline as much as five percent. However, if output prices were also adjusted, farm income could actually be higher than at present but grain production would fall, especially if acreage controls were lifted at the same time.

Although farmer demand for subsidized fertilizer is not met by the current supply, the current supply would meet demand at unsubsidized prices and result in more efficient use of irrigation water as well as fertilizer. Input and output prices more in line with international prices would result in a more rational cropping pattern and output mix.

3.2.2 Output Price Supports in Liberia

Agriculture accounts for four-fifths of employment and one-third of Gross Domestic Production in Liberia. Agriculture is especially important to the economic future of the country because two major sources of national income and export earnings, iron ore and high-grade timber, are expected to be severely depleted by the Year 2000. A workshop was held at Yekepa, Liberia for policymakers and analysts in March 1985. The APAP policy analysis delivery system here is notable for the process and methodology as well as information provided for reforming Liberian agricultural policies.

Policy Analysis Delivery Process

Significant features of the APAP policy analysis delivery process utilized in Liberia are listed below before turning to methodology and policy information.

- APAP personnel interacted with indigenous analysts and officials in three visits to Liberia to assemble basic background data on the nature of current policies, problems, policy objectives and constraints. Cooperation and support of key Liberian officials was critical; the Deputy Minister of Agriculture for Planning and Development played a central role. Richard Edwards of USAID (on leave from USDA) was especially effective in providing liaison between Liberian officials and APAP analysts.
- A strong collaborative relationship was developed with Liberian counterparts in the Ministry of Agriculture. These counterparts worked closely with APAP personnel in defining and analyzing issues, co-writing reports, and making presentations at the workshops. Three of these counterparts were brought to Oklahoma State University for a six-week training session in policy analysis concepts and tools, including use of microcomputers for policy analysis. Liberian counterparts provided long-term continuity to the project, building on the process initiated by APAP long after the project officially terminated.
- Policy education and dialogue took place with Liberian policy officials, especially with Assistant and Deputy Ministers of Agriculture in the preparation stage, but also at the Yekepa workshop. The workshop was attended by the Minister of Agriculture and other high level officials from parastatals, the Party and from the Ministries of Finance, Planning, and Presidential Affairs for a total of over 50 workshop participants.
- After APAP analysts and Liberians made workshop presentations detailing major problems, policy options, and the costs and benefits of alternatives, open discussion was encouraged among participants. APAP personnel provided information in these free-wheeling discussions but avoided advocacy.

- Policymakers met after the workshop but made no policy recommendations or policy decisions. However, within two years, many of the policy reforms considered at the workshop were implemented. The lesson is that international consultants implementing policy workshops or related policy analysis delivery mechanisms should not expect nor insist on immediate acceptance and implementation of findings. Reasons for delays are many, including local pride and the need for further reflection, consultation, analysis, and convergence of views.
- Fourteen papers were published in the workshop proceedings and constitute an important archive to be drawn on for future policy analysis and formulation. Of the 14 papers, five papers from the APAP effort constituted the initiating and "keynote" papers. Because unlike other change agents, APAP had no implementation leverage in the form of withdrawing loans or other substantial aid assistance in Liberia, APAP influenced policy decisions by the force of competent analysis successfully communicated to decisionmakers. Although the analytical methods were sometimes complex and sophisticated, emphasis was on clearly conveying only the essential findings to lay decisionmakers.

Rice Price Support in Liberia

The major government price program was support of 18 cents per pound of paddy rice (double the border price) to encourage self-sufficiency, and avowed government policy. Other policy objectives were economic efficiency, equity, and stability. To show tradeoffs, costs, and benefits of alternative price policies, three main studies were undertaken by APAP personnel in collaboration with Liberian counterparts in the Ministry of Agriculture.

One study (Epplin and Musah, 1985) employed linear programming (LP) of a representative farm to determine comparative advantage based on border prices. Rice, the staple, had to be forced into the solution, and gave a shadow price of 26 cents. This means that 26 cents of revenue from tree crops (coffee, cocoa, palm products or rubber) was foregone for each pound of rice produced. By specializing in tree crops, producers could buy over twice as much rice with proceeds from cash as they could produce on the farm with the same basic resources of land, labor and capital.

A second study, a classical welfare analysis of Liberian rice policy by Tweeten and Rogers (1985) showed costs, benefits and income redistributions from the rice price support.⁷ Government price supports transferred income from consumers to producers and to the public sector. Losses to consumers more than offset gains to producers and

⁷See Tweeten (1985) for methodology of classical welfare economics.

the public sector. Thus, rice market intervention reduced real income of Liberia by over \$1.80 per dollar transferred to producers in 1982, 1983 and 1984. This exceedingly high transfer cost (low transfer efficiency) resulted from: pan-territorial pricing; spoilage due to inadequate public capacity to mill paddy rice delivered to the parastatal; dock spoilage of PL 480 imports caused by inability to market because private imports were undercutting government sales at government fixed retail prices; and due to higher parastatal than private sector marketing costs. The rice support policy was neither efficient (it reduced national income), equitable (it benefitted mainly influential, more wealthy producers), nor stabilizing. It added to price volatility because the high Treasury cost frequently caused the government to run out of funds, forcing interruption of purchases and consequently large price fluctuations. Faced with the above problems, including inability to control inflow of cheaper rice from neighboring countries, the government reduced its support price.

A third study (Trapp, Rogers and Wilkins, 1985) employed dynamic simulation of the Liberian rice economy to examine alternative price and consumption stabilization policies. The study found that seeking food security through rice self-sufficiency was an exorbitantly expensive policy. Food security through domestic buffer stocks was feasible but much more expensive than a cash reserve built from a variable levy on imports and used to fund rice purchases in world markets when weather diminished domestic supplies.

3.2.3 Marketing Margins For Fruits and Vegetables In Jordan

Agriculture is an important basic industry in Jordan, accounting for 8.5 percent of GDP. Although this percentage is small by developing country standards, major current income sources such as remittances from Gulf States are uncertain and may fall in the future. Hence, Jordan would like to increase GDP from basic domestic industries, including agriculture.

The APAP policy analysis process in Jordan was similar to that in Liberia, including visits by APAP personnel to define and analyze cogent local problems and to present a workshop to Jordanian agricultural policy-makers, analysts and informal leaders (Jiron et al., 1988). Less emphasis was given to training of local counterparts than in Liberia because Jordan already possessed considerable policy analysis capabilities.

Price Support and Marketing Margins

Two pricing policies were analyzed: (1) government restrictions on imports which raised consumer prices of potatoes, onions, garlic and apples and (2) a formal "reference" pricing system which set prices in retail markets (though not in wholesale markets).

Classical welfare analysis indicated that gains to producers and the government parastatal from restrictions on vegetable imports fell short of losses to consumers. For potatoes, for example, National income fell JD (Jordanian Dinar) .3 for each JD gained by producers. This transfer inefficiency was much less than for the Liberian rice price support policy noted earlier but was larger than achievable with a direct cash transfer payment to producers.

The policy of administratively setting fruit and vegetable prices in the retail market had several economically undesirable impacts. Although maximum and minimum prices were set by a public board, allowed marketing margins were set too narrowly to cover marketing costs. Hence, all fruits and vegetables tended to be sold at the maximum price without quality distinctions. Thus, the controlled retail market did not send price signals back to producers that some consumers desired and were willing to pay premium prices for premium produce. That is one reason the problem of low quality produce pervaded both domestic and foreign markets for Jordanian fruits and vegetables.

Deregulating the market is one solution to the problem of providing producers with price incentives to supply quality produce. However, conventional wisdom held that such an attempt at liberalization failed during its trial period of December 1985 to March 1986. Extensive analysis of data from that period by APAP personnel however, revealed that, compared to market behavior in comparable controlled periods, during liberalization, retail prices increased for some commodities but decreased for most fruits and vegetables. More importantly, a representative basket of the main fruits and vegetables consumed in Jordan was less expensive during the liberalization period.

These and other results were shared with policy-makers and policy analysts at a workshop held at Aqaba in late January 1988.

3.2.4 Consumer Price Subsidies In Bangladesh

Food and Agricultural Situation

Rice accounts for 95 percent of total foodgrain production and 85 percent of foodgrain consumption in Bangladesh, though wheat gained rapidly in both categories since the mid-1970s. Total 1982/83 foodgrain consumption in Bangladesh was approximately 15 million tons, 85 percent supplied domestically, the remainder consisting primarily of food aid.

The agricultural sector dominates Bangladesh's economy. Roughly 83 percent of the country's 100 million people live in rural areas. Rural groups represent 86 percent of the civilian labor force, 59 percent of which is directly employed in agriculture. As one of the world's most densely populated countries, Bangladesh experiences tremendous pressure on limited land resources. Moreover, the distribution of land ownership and wealth is highly skewed: four percent of the population owns one-third of the land, while nearly half of the rural population is landless or near landless. This situation contributes to severe seasonal unemployment and an extremely low standard of living for the rural poor. Per capita income is approximately \$125 per year.

Bangladesh's poverty contributes to widespread malnutrition. The World Bank estimates that less than 40 percent of the population is adequately nourished by the minimum daily consumption standard of 2,020 calories, while 45 percent of the population consumes under 1,650 calories daily. Ninety percent of the malnourished live in rural areas, with the landless and informal non-farm labor (32 percent of the population) surviving on merely 1,500 calories per day, the minimum level necessary to sustain body weight (World Bank, 1985, p.3).

Food Policy Context - Consumer Subsidies

The Government of Bangladesh (BDG) operates two categories of consumption interventions: Open Market Sales (OMS) and a food ration system. The OMS program is untargeted, while the ration system targets specific consumer groups. The OMS program consists of open market government cereal sales. These sales are triggered by open market cereal price increases above pre-established levels. The objective of the program is not to impose a firm ceiling on cereal prices, but to buffer market price increases by public sales of limited quantities at a fixed margin (roughly 2 percent in 1985) below the open market price. Thus, the OMS price parallels fluctuations in open market prices, though at a fixed percentage below the open market price.

The BDG also operates an extensive and complex food ration system, known as the Public Food Distribution System (PFDS). The PFDS consists of seven separate ration channels targeted to various consumer groups. Consumers who qualify for various ration programs receive ration cards entitling them to purchase limited quantities of specific commodities below market prices in special ration shops.

Although the ration system is targeted, three of the seven channels are targeted to relatively well-off groups -- urban residents, civil servants, and military personnel. In 1984, over one-third of food rations went to these groups. (OMS and related market operations accounted for 16 percent of public food distributions.) The two targeted ration programs specifically aimed at needy consumers received only 46 percent of total rations.

Most beneficiaries of the ration channels oriented to relatively well-off consumers have incomes sufficient to ensure relatively stable foodgrain consumption. Moreover, those groups are the chief beneficiaries of the OMS program. Clearly, these programs exist for political rather than for economic reasons, with beneficiaries of these programs providing vital political support to the government. Unfortunately, these channels also divert scarce food resources from needy consumers.

APAP Experience

APAP's involvement with consumer subsidy programs in Bangladesh came through USAID/Dhaka's request for assistance in designing a PL-480 Title III agreement. As part of its task to recommend a broad set of policy conditions for the Title III agreement, the APAP team reviewed the consumer subsidy programs (Block and Makinen, 1987).

The APAP team found that the OMS program was a well-conceived and well-implemented price stabilization program on the consumption side. Yet, it was also apparent that the OMS program alone was not sufficient to meet the consumption assistance requirements of a great number of the neediest consumers. The poorest consumers lacked adequate income to benefit substantially from the OMS program because they lacked effective demand, even at OMS prices. As described above, the dire nutritional situation in Bangladesh meant that consumers who could not benefit from OMS comprised a significant portion of the population. The need for some form of targeted consumption intervention was clear, as was the need to reform the existing ration system.

The primary objective of APAP recommendations regarding reform of the ration system was to reduce as much as possible the quantity of food channelled to non-needy consumers, and to reallocate that food to the poorest consumers.⁸ Political realities dictated that the BDG could not simply eliminate the ration channels directed to urban centers, the army, and civil servants. Recognizing this constraint, APAP recommended a two-pronged approach to reforming the ration system.

One strategy for lowering the subsidy for non-needy consumers was to manipulate the ration prices in those particular channels. By gradually raising the ration prices offered to non-needy consumers to the point that ration prices approximated market prices, the incentive for those consumers to participate in the ration system could be reduced or eliminated. This approach would be much less vulnerable to political pressure by pacing ration price increases to moderate levels timed to occur during the post-harvest season when prices are ordinarily at their lowest.

A second strategy was to alter the mix of commodities in the standard ration. Empirical analyses of food consumption patterns consistently point to different consumption preferences by different income classes. Wealthier consumers tend to be less sensitive to changes in the price of commodities they consider to be inferior. This distinction extends as well to preferences for different grades of the same commodity, such as rice in Bangladesh. Poor consumers tend to be much more sensitive to price changes in these less preferred commodities or in the lower grades of preferred commodities. Thus, by changing the composition of the standard ration away from high quality rice (the preferred food), and rationing only low quality rice if any, the BDG could further reduce wealthier consumers' incentive to participate in the ration system.

⁸Previous Title III agreements aimed at reducing the fiscal burden of the ration system had already succeeded in reducing its subsidy cost by two-thirds from FY80 to FY84. The need in the new Title III agreement was to re-focus the remaining rations.

3.2.5 Cereals Exports Reform In Togo

Agricultural Situation

Although Togo has the potential to increase food crop productivity and to produce an exportable surplus of cereals in most years, productivity remains low. This is due, among other factors, to low domestic demand compared to productive potential, government restricted exports, and a lack of production incentives. In addition, productivity is low because of limited technical assistance and improved inputs reaching the farmer due to poor performance of the extension service and limited agricultural research. Improved seeds and inputs are not as available for cereals as they are for the traditional export crops. Credit programs are largely restricted to coffee, cocoa and cotton producers.

An equally serious constraint is the lack of price incentives for farmers to increase cereals production. Producer prices are highly unstable. High prices in a poor crop year lead to increases in area planted to maize in the next cropping season and, with good weather and government restrictions on exports, this leads to surpluses of maize and depressed prices. For example, in 1984-85, a large surplus of maize, up to 20,000 metric tons, resulted in severely depressed farm-gate prices.

Although the Government of Togo (GOT) prohibited exports, an extensive informal foreign trade in maize and other cereals allegedly existed with maize imports from Ghana, and maize, sorghum and millet exports to Burkina Faso, Nigeria and Niger.

Policy Reform and APAP Experience

In 1986, APAP assisted USAID/Lomé and the GOT in designing a policy reform program aimed at liberalizing cereal exports (Hanrahan, 1988). The policy reform program included: (1) legalization of cereal exports, (2) a limited role for the Togolese grain Marketing Board in grain marketing and maintaining a food security stock, and (3) an export licensing system. AID was to support these reforms with a cash transfer and technical assistance in data collection, analysis, crop forecasting, market reconnaissance, and in developing procedures to monitor and regulate export marketing for food security.

These policy reforms were undertaken in conjunction with a World Bank supported structural adjustment program and financed by a grant from AID's African Economic Policy Reform Program. APAP technical assistance included analysis of the grain supply and demand situation in Togo and elaboration of operating rules for limiting grain exports.

Performance monitoring to chart progress on these policy reforms was to begin in July of 1986. Based on agreed performance benchmarks, USAID/Lomé could build a performance record that would: (1) justify decisions on disbursement of the second tranche AID monies, (2) identify further steps in the policy dialogue and consideration of subsequent assistance, and (3) serve as the basis for the final program evaluation. In addition, USAID/Lomé planned to monitor, on a continuing basis, the progress of policy dialogue, reform implementation, and progress in donor coordination on general structural adjustment and policy reform.

This plan was designed to help the GOT make a smooth transition from the current cereals situation of recurrent production surpluses and restricted exports to higher and more stable production with a stock program to give reasonable stability to producer prices, supply and utilization -- all consistent with national food security.

3.2.6 Macroeconomic Policies and Agriculture In Guatemala

As in most developing countries, agriculture dominates the economy of Guatemala and was the primary engine of the country's economic growth from 1970 to 1978. In subsequent years however, Guatemalan macroeconomic policies negatively affected agriculture. Basic macroeconomic policies relevant to agriculture were: 1) low public and private investment in agriculture, 2) a credit policy aimed at financing traditional activities, 3) excessive tariff protection for industry, and 4) an ineffective agricultural price control policy.

Monetary Policies

Since 1982, changes in monetary policy were intended to expand the supply of money and credit in the economy. The effect, however, was to reduce the availability of agricultural credit for production and investment while further strengthening the tendency to direct available credit to traditional export crops. Through rediscount operations the central bank reinforced this trend, concentrating credit almost exclusively on single-crop farming in relatively inefficient enterprises.

Exchange Rate Policy

As noted earlier, exchange rate policies have particularly important consequences for agricultural price policy because most agricultural commodities are tradable. The main objectives of Guatemala's exchange rate policy (since the foreign exchange crisis of 1982) have been to allocate the available supply of foreign exchange to priority imports and to reduce the impact of the devalued currency on the economy.

Toward these ends, the government applied import quotas to ration foreign currency. These quotas raised the unit cost of production and discouraged the adoption of improved production techniques.

The government also operated a three-tiered exchange rate. The "regulated market rate" applied to imports of "essential" items; the "official market rate" applied to government debt service payments and the "commercial market rate" applied to banking system transactions. This system neither reduced the balance-of-payments deficit nor prevented a depreciation of the national currency. Preferential exchange rates for machinery and equipment favored the use of capital-intensive technologies to the detriment of agricultural labor. These harmful impacts have been mitigated recently by moves to unify the exchange rate; yet, restrictions on the commercial exchange of certain agricultural products continue to separate domestic and international prices.

Credit Policy

Monetary policy acted to limit the supply of credit and cause a shortage of agricultural credit. Moreover, high inflation rates since 1979 created negative real interest rates, discouraging savings. Access to limited agricultural credit was greater for producers of traditional export crops (coffee, cotton and sugar cane), leaving little benefit for grain producers.

In general, these macroeconomic policies transferred resources from agriculture to other sectors of the economy. Results included significant reductions in investments in agriculture and increases in production costs that reduced the profitability of small and medium-sized farms.

APAP's Experience with Policy Reform in Guatemala

The preceding analysis emerged from a general inventory of policies affecting agriculture conducted in Guatemala by APAP economists. This activity was based on the recognition by USAID/Guatemala that macroeconomic policies made with little regard for agriculture nonetheless had significant impacts on the agricultural sector's performance.

In addition to conducting a technical analysis, the team examined the institutional arena in which macroeconomic policy in Guatemala was formed. It was clear that part of the problem lay in the minor role played by agricultural sector officials in macroeconomic policymaking.

The APAP team concluded that the institutional infrastructure had the potential to coordinate planning and policy analysis within the agricultural sector. However, the diffused nature of agricultural policy formation in Guatemala contributed to an under-use of that infrastructure from a sector-wide perspective. The first step towards integrating agricultural interests into macroeconomic policymaking was to improve the inter-institutional planning and analysis capabilities within the sector.

The policy inventory itself provided a guide to focus the analyses of the agricultural sector institutions as Guatemala began to directly address specific areas of macroeconomic policy. To improve the capability and coordination between the various agricultural planning units, the APAP team recommended an applied planning exercise be implemented by the planning units. This not only produced concrete agricultural plans and analyses, but helped forge communication channels within the sector and between the sector and the centers of macroeconomic policy formation.

3.3 LESSONS LEARNED AND RECOMMENDATIONS

This chapter has presented a conceptual framework analyzing agricultural price policy interventions in terms of the tradeoffs they impose among competing agricultural sector objectives in developing countries. Governments' ability to implement agricultural price policy reforms depend largely on their understanding, not only of the need for reform, but on their familiarity with the role of price policy and the implications of alternative price policy interventions vis-a-vis their agricultural sector objectives. Section three of this chapter draws upon APAP's experience in providing technical assistance to present six case studies of efforts to implement various types of price policy reforms.

In general, the challenge in designing and implementing agricultural policy reforms is to use a limited set of policy instruments to achieve multiple and often conflicting objectives. The role of prices as both incentive or restraint on production and consumption and as distributor of income gives rise to a conflict between dynamic growth in the agricultural sector and the entire economy, and the short-term income and nutritional requirements of the poor. The combination of limited economic resources and limited policy tools imposes tradeoffs among food policy objectives. For price policy analysts to contribute constructively to the process of policy reform they must desire solutions, analyze tradeoffs, estimate costs and benefits, and help policymakers to define policies that minimize the tradeoffs among competing objectives.

The present need for agricultural policy reform in many countries is the result of a long history of excessive public intervention in agricultural markets. These interventions typically have involved combinations of the price policy interventions outlined earlier in this chapter. Too often, such interventions have failed in their efforts to ensure rational food security and nutritional welfare by taxing agriculture in order to maintain low food prices in urban centers. The tradeoff has come in undermining the growth in agricultural development and export earnings necessary to sustain generalized consumer subsidies.

The agricultural price policy reforms outlined in this chapter typically seek to redress historical imbalances between producer incentives and consumer subsidies, and between public versus private initiatives in the agricultural economy. One motivation for government's extensive involvement in agricultural price formation is a common distrust of market forces as a mechanism for resource allocation. APAP's experience with price policy reform indicates that sound policy analysis that is sensitive both to economic efficiency and to distributional concerns can go far in assuaging governments' fears of reform. The case studies presented in this chapter illustrate innovative uses of price policy tools to promote needed policy reforms.

In implementing price policy reforms, governments should: (1) gain an understanding of the need for, and commitment to, price reform; (2) develop the ability and commitment to analyze all important ramifications of price reform options and continually monitor and evaluate structural adjustments; and (3) take appropriate, sometimes small, steps of corrective action, each building on the previous in moving the food and agricultural complexes toward a reasonable balance between the price-setting role of open markets and price-stabilizing policy interventions. Policy interventions and relative price relationships at the producer, marketing, processing, domestic consumer and world market levels must be carefully considered and managed as an integrated system so that reforms at one level do not cause unforeseen difficulties at another. Food aid and other targeted assistance can offset economically or politically intolerable hardships on those socioeconomic groups suffering losses from socially beneficial adjustments with positive net social benefits (Block, Bremer, and Hanrahan, 1988). Border prices, corrected for transitory phenomena, are useful proxy shadow prices for estimating the social costs and benefits of existing policy interventions and options for reform.

Agricultural price policy reform efforts must be coordinated very closely with macroeconomic policy reform and debt management. Such macroeconomic adjustments can easily overshadow agricultural sector price reforms. Concurrent with price reform, governments should examine the growth enhancing needs of education, health, transportation, communications and other infrastructure as well as investment in natural resources, research and extensions.

In providing policy analysis assistance, several types of activities facilitate the USAID/host country policy dialogue and subsequent reforms. These include maintaining a reasonably long-term relationship between members of the technical assistance team and host government counterparts; training counterparts on the development and use of data sources and analytical techniques and tools; and conducting a policy workshop at the close of the technical assistance activity involving host country policy decisionmakers and counterpart analysts. This process also contributes to more confidence and trust on the part of host country policy decisionmakers with respect to both price reform options and the ability of counterpart analysts to continue to provide policy analysis support after the technical assistance project is completed. It is not realistic to expect immediate or complete positive response of host country policy decisionmakers to price reform recommendations that come out of a technical assistance project. The information and analytical capability must revert to the host country analysts and internal policy determining processes.

CHAPTER IV
PRIVATIZATION OF AGRICULTURAL
MARKETING¹

By

Jennifer Bremer-Fox

4.0 INTRODUCTION

Governments of both developing and industrialized countries regularly intervene in agricultural product markets. Dominant approaches however, differ greatly between the two groups of countries. Industrialized governments intervene primarily to protect farmers' income, reducing year-to-year variation or subsidizing total returns depending on the particular situation. Their programs operate through market mechanisms; they do not supplant them. These programs are expensive and in economic terms, inefficient, but they are effective, at least in the short term.

By contrast, developing country governments typically intervene to achieve one or both of two purposes: protect or subsidize consumer incomes by ensuring low prices to urban purchasers of food commodities, or earn revenues for the government itself by taxing farmers' sales of export commodities. Protection of farmer incomes receives nominal support under these programs. With the exception of a few cases such as India and Indonesia, the reality has generally been farm-gate prices maintained well below free market or world market-equivalent prices. Intervention programs in developing countries often operate in place of private markets, rather than through market mechanisms, as in the industrialized countries.

Developing country governments also frequently intervene in markets for agricultural inputs such as fertilizer. The majority of such programs are designed to subsidize farmer input use to encourage such use, to compensate farmers for other programs that tax farm income, or to provide an income transfer to farmers (or, more often, to specific groups of farmers such as producers of priority crops). Industrialized country governments, by contrast, generally do not intervene in input markets except to ensure quality and, in some cases, to subsidize research and extension. Both groups frequently subsidize farm credit.

¹Originally issued as APAP Staff Paper No. 28, September, 1988, Robert R. Nathan Associates, Inc. Washington, D.C.

Intervention by developing country governments in marketing agricultural products is a major impediment to increasing agricultural production, causing below-market prices and poor farmer incentives. Input subsidy programs also reduce the availability of inputs, placing a heavy burden on government budgets, and inhibit the flexibility needed to respond to changing farmer needs and market conditions. Such interventions impede the development of competing private sector marketing institutions in both product and input markets, seriously constraining agricultural growth.

Concern with the negative impacts of government market interventions in developing countries has caused governments and donors alike to include market reform measures in policy reform programs in countries from Antigua to Zambia. Frequently, such reforms are closely linked to price reform measures, given the central role of government marketing institutions in implementing price control systems. While reforms have varied as widely as the countries themselves, market determination of prices, and greater reliance on private sector market institutions, such as traders, are elements common to the majority of such programs.

This chapter examines issues raised by implementing reforms to increase the private sector's role in domestic and international markets for agricultural products and inputs, shifting the primary responsibility for agricultural marketing from public to private institutions. We refer to this transfer of authority as privatization, whether or not ownership of the state marketing institutions actually shifts to the private sector. We thus apply a somewhat broader definition to the term privatization, taking a market-level focus rather than a firm-level focus. Privatization includes programs that transfer functions to the private sector, divest public institutions to private owners, and/or liberalize market rules to give freer rein to market forces.

This chapter concentrates on practical issues surrounding the difficult transition from market domination by a parastatal to a system based on private market institutions. It touches only briefly on the economic benefits to be gained from liberalizing the market, noting in particular that privatization (of the market or market parastatal) does not necessarily lead to liberalization of the market, in the sense of competitive determination of prices, without other reforms, and therefore may not yield all of the economic benefits expected.

This discussion is based on APAP experience. It builds on several staff papers, in particular the review of alternative approaches to privatization of agricultural markets.² As this review of experience demonstrates, progress in implementing privatization programs has not proceeded as rapidly as acceptance of the value of greater private sector involvement. In many cases, obtaining government approval for privatization is only the first step in a long process. Because most countries dealt with here are still in the middle of that process, the final results are unclear, and lessons learned must be regarded as tentative.

The paper is organized in four parts. Following this brief introduction, the second section discusses issues in the privatization of agricultural marketing, including impacts on consumers, producers, and private market institutions. The third section discusses experience in three countries in more detail; the final section discusses lessons learned and reviews alternative approaches to privatization.

4.1 ISSUES IN THE PRIVATIZATION OF AGRICULTURAL MARKETING

4.1.1 Government Intervention in Agricultural Marketing in Developing Countries

As noted above, intervention in agricultural markets is pervasive in developing countries, often motivated by factors only loosely connected to the operation of these markets or to the well-being and development of the farm sector. The reasons behind intervention are often complex, including, in addition to the subsidization of consumers and the generation of government revenues, any or all of the following: maintenance of government control over economic activities closely linked to national security reducing influence of private sector elements in the economy (such as particular ethnic groups or political interests), promoting government-owned company interests (such as textile mills, dependent on locally produced cotton), uncertainty regarding the reliability of private interests and market mechanisms, and a need to create public sector employment opportunities. Donor encouragement and financing, as well as the continuation of colonial institutions in some cases, has also played a significant role in the creation of state marketing institutions.

²Jennifer Bremer-Fox, "Privatization of LDC Agricultural Markets: Options for Reducing the Roles of Agricultural Parastatals, APAP Staff Paper No. 4, September 1986.

Given this diversity of interests, it is not surprising that government intervention in marketing of agricultural crops, livestock products, and inputs in developing countries takes equally diverse forms. Despite this diversity, interventions can generally be classified in one of three categories, based on the nature of the state's involvement in market transactions:

- **Direct involvement in the market:** the state or state-owned enterprises actually buy and sell the commodities involved, sometimes in competition with private interests.
- **Taxes and subsidies:** the state transfers funds to or from one or more of the participants in the market transactions, without actually taking part in the sale itself.
- **Market regulation:** the state regulates the operation of the market (fixing prices by decree, for example) but does not participate directly in the market or transfer funds to or from market participants.

Several of these interventions may coexist in a specific market, often involving several different government organizations. For example, government parastatal A may purchase farmers' rice on the open market, while parastatal B transfers a subsidy to state rice-growing farms; ministry C decrees the price of rice to be paid by private traders; and ministry D regulates who may legally operate as a trader.

While economic theory focuses primarily on taxes and subsidies, developing country governments have relied more heavily on direct involvement and market regulation, primarily because of the difficulty of implementing taxes and subsidies in a developing country environment, unwillingness to subsidize private transactions, and an ideological preference for direct state action. The economic theory of parastatal operations is poorly developed, but both experience and theory agree that the impact of the parastatal on market operations and outcome (price levels, quantities traded, and the income of both traders and farmers) is heavily influenced by two sets of factors:

- **Price determination:** how the parastatal price is determined and its relationship to the market price.
- **Quantity determination:** whether the parastatal operates as a monopoly (legally or in effect) and how the quantity moving through the parastatal channel is determined (by market forces or by administrative decision).

These factors cannot be explored in depth here. It should be noted, however, that these factors greatly influence the way the parastatal interacts with other buyers and sellers in the market, and therefore affect both the impact of the reform and the alternatives available to implement it. A parastatal that has operated as a monopoly, selling agricultural inputs at subsidized prices, creates a very different environment from one that operates side by side with private input dealers at prices close to market levels (the latter situation is admittedly a rare one).

Just as motivations for instituting state involvement in agricultural marketing differ greatly from case to case, so do reasons for privatizing the market. Among the prominent reasons for choosing to reduce the role of a parastatal in the market or to privatize the parastatal itself are the following: (1) reduction of the financial burden placed on the treasury by parastatal losses; (2) dissatisfaction with the parastatal's effectiveness, efficiency, and flexibility in dispatching its marketing duties; (3) a shift in ideological preference toward greater involvement of the private sector; (4) a need to generate funds by liquidating unproductive state assets; and (5) hope of generating donor support for other government programs. All participants in the process may not share the same reasons for supporting privatization. For example, the government may view sale of the parastatal as primarily a budgetary measure, motivated by a need to raise revenue or cut losses, while donors support privatization in order to increase market efficiency. These differences may emerge as a problem during the design and implementation of the privatization program, because they imply different priorities or approaches to the reform.

4.1.2 Reducing Government Intervention: Impacts on Consumers and Producers

The impact of reducing or eliminating the parastatal's role in agricultural markets depends on the impact of parastatal operations prior to the reform. In a surprising number of cases, governments and donors frequently disagree on what the impact was, and therefore have different expectations regarding the likely effect of possible reforms.

Such differences of opinion are more likely with respect to the impact on producers, than the impact on consumers. Impacts of parastatal grain marketing organizations on urban consumers are relatively transparent, at least in terms of their direction: they nearly always transfer income to consumers from producers, donors, or the government. Observers may differ as to the magnitude and distribution of these benefits.

Advocates of reform argue that benefits are received primarily by comparatively well-off urban consumers, while advocates of the status quo argue that the parastatal constitutes an important protection and source of support for low-income consumers.

Impacts on farmers are subject to greater disagreement. In the most common situation, the parastatal purchases a portion of the crop at a government-determined price which, although based in theory on a calculation of the cost of production, may actually be determined by negotiation between interest groups. Even where government policy requires the parastatal to purchase all of the crop, or at least all that is offered to it for sale, private traders usually handle a significant portion of the total. There are numerous reasons for this: traders may offer a higher price (particularly in years of poor production); where the parastatal's price is higher, it rarely has the resources to purchase the full marketable surplus; administrative delays generally result in the parastatal's buying campaign beginning weeks or months after farmers begin selling; and the parastatal network rarely extends effectively throughout the entire country.

The net result of these factors is that parastatal purchases are made disproportionately from more prosperous farmers in less remote regions, at least when the parastatal's price is attractive to farmers. The impact of these purchases on the price paid to poorer, more remote farmers both before and after the parastatal's buying campaign, is highly questionable. If the parastatal begins selling or distributing the commodities purchased immediately, rather than incurring the storage and interest costs of holding them off the market until prices rise toward the end of the season, there is likely to be no impact.

The cessation of parastatal operations therefore may not impact low income farmers. As argued below, to the extent that the parastatal and related policies impede expansion of an efficient, competitive network of private trades, the parastatal may indirectly reduce prices to farmers by raising marketing costs. Despite these realities, many participants in the process may remain committed to preserving the parastatal's putative price support function.

4.1.3 Impacts of Government Intervention and Reform on Private Market Institutions

Regardless of specific privatization program design, success requires a functioning, and preferably competitive, private sector. It is extremely difficult to transfer the parastatal or its assets to private hands in the absence of a set of firms with sufficient capital and managerial capabilities to take over from the public sector. If the private sector is demonstrably weak, the government may be hesitant even to attempt to

make the transfer, given the potentially disastrous impact of disrupting critical agricultural markets. Moreover, if the private sector is dominated by a few large firms, transfer of the public company's assets to these firms may make them so strong that competition is actually reduced.

The more powerful the parastatal and the more heavy-handed the government's other agricultural marketing interventions, the less likely it is that a strong, competitive private sector exists to take over from the parastatal. Where markets have been dominated by parastatals for a sustained period and other policy measures have been put in place that restrict (or even prohibit) private sector activity, development of private sector firms is crippled. Moreover, firms able to thrive in such an environment often do so by adopting a strategy of symbiosis with the government, linking their operations closely to those of the parastatal or relying on personal and financial ties with government officials to operate profitably. These strategies, which may be highly profitable for the firms concerned, are not consistent with a privatized market.

In other words, the greater the need for reform, the more difficult it is likely to be. Opposition to privatization may come not only from the parastatal itself and those in the government who favor continued public sector market dominance, but also from private sector firms currently operating in the market and their contacts within the governments.

4.1.4 Alternative Approaches to Privatization

As used in this paper, privatization is not synonymous with the sale of public sector companies. Privatization is better viewed as a reform package that may involve any or all of the following, as long as the end result is a competitive market dominated by private sector firms:

- **Transfer** of some or all of the parastatals' marketing functions to the private sector, i.e., full or partial withdraw of the parastatal from market operations;
- **Divestiture** of some or all assets of the parastatal, to transform it into a private firm or a joint venture, or other measures to deal with the parastatal's assets (further discussed below); or
- **Liberalization** of the market, including decontrol of price formation and other deregulation to permit and encourage competition among private firms and, if appropriate, public firms as well.

Although privatization is often associated with divestiture (the sale of the parastatal to the private sector), this is only one of the approaches available to deal with the parastatal's assets. Particularly, where the parastatal is charged with multiple functions and purposes, other approaches may be both easier to implement and more effective. Primary alternatives as listed below.

- **Divestiture:** Sale of the parastatal to private sector interests, as a unit or broken up into several units, including formation of joint public-private ventures.
- **Liquidation:** Cessation of operations and sale of the assets to other public or private entities.
- **"Invisible liquidation":** Gradual reduction of investments and cuts in operating expenditures, with the result that the parastatal effectively ceases operations, although continuing to exist formally.
- **Marginalization:** Freezing or gradual reduction of the parastatal's operations, while encouraging rapid growth of private sector firms to compete with and eventually replace it.
- **Partial divestiture:** Sale or other transfer of the parastatal's commercial (potentially profitable) operations to the private sector, together with assets related to these operations, while retaining some operations and assets, particularly those associated with social functions (for example, selling or closing "fair-price shops" in high-income areas, while continuing to operate stores in low-income areas).
- **Leasing and contracting:** Leasing out parastatal facilities to the private sector and/or contracting with the private sector to perform parastatal functions previously carried out by the parastatal itself.

In some cases, it may be desirable for the parastatal to continue in operation, either as a for-profit, public owned firm or as a conduit for government services. In such cases, as well as in programs involving divestiture or contracting management, improvements to the parastatal may be a critical element for success. However, implemented in isolation, such measures have no possibility of creating a competitive market, and thus do not meet our definition of privatization.

Whatever the approach used to deal with the parastatal and its assets, two types of additional measures may be necessary to develop a reform package, in addition to liberalizing market rules and withdrawing the parastatal to make room for private entrants. First, the program may include policy and programmatic measures to speed the establishment of a competitive private market after the parastatal withdraws. Replacing

a public sector monopoly with a private sector monopoly is rarely a desirable outcome, but this may be exactly what occurs when a market-dominating parastatal is sold to a single private sector firm. Avoiding this outcome may require policy changes to encourage new private sector entrants and programs, such as credit assistance or both.

Second, a range of policy and programmatic measures may be appropriate to accomplish the noncommercial (social or political) functions for which the parastatal was established. For example, a government committed to targeting food subsidies to the poor may choose to replace a fair-price shops system with food stamps.

4.2 APAP EXPERIENCE WITH PRIVATIZATION

This section draws on APAP experience in supporting privatization and market liberalization to explore the themes developed above further and to draw conclusions that may be applicable to privatization programs in other country situations.

APAP provided short-term assistance to privatization and market liberalization programs in a wide variety of cases, including the following:

- Privatization of input markets and fertilizer distribution in Egypt;
- Privatization of grain export trade in Togo;
- Liberalization of fertilizer distribution and grain marketing in Pakistan;
- Liberalization of food crop markets in El Salvador;
- Privatization and liberalization of grain markets in Mali; and
- Privatization of government agricultural equipment workshops and liberalization of grain trade in Niger.

Assistance provided ranged from analyses conducted to support project design or a reform program (in Egypt and Pakistan), to technical assistance for implementing (Togo and Niger), and evaluating programs already underway (Mali).

This section briefly discusses three experiences covering the range of experiences, including one case related to input marketing (Egypt), one related to domestic crop marketing (Mali), and one related to export markets (Togo). Although APAP involvement was comparatively brief in each case (short-term technical assistance consisting of two or more trips over a period of six months to a year), the experience yielded insights into the privatization process, suggesting both potential pitfalls and possible solutions to problems encountered in implementing these important but challenging programs.

4.2.1 Privatization of Fertilizer Distribution in Egypt

Government Involvement in Agricultural Marketing

As reported in Chapter III, Egypt's agricultural sector is widely recognized as one of the most heavily regulated in the world. Controls extend from determining key parts of the cropping pattern (which farmers may grow which crops on what land) to public sector monopolies in marketing important crops, such as cotton, and active public roles in marketing of other crop such as rice.

Involvement in input marketing is particularly heavy. Since 1976, the government's sole agent, the Principal Bank for Development and Agricultural Credit monopolized the importation, marketing, and distribution of fertilizer, pesticides used on cotton (including many of the most widely used formulations), improved seed produced by parastatal seed companies (all cotton seed and a large portion of the grain seed), and subsidized feed. The Bank also acts as an agent for selling agricultural machinery produced in-country and imported, both public and private. Finally, the Bank has a legal monopoly on agricultural credit at the farm level. There is virtually no formal credit for traditional and private agricultural input suppliers. Traditional moneylenders provide only a very limited amount of credit, and what they do provide is illegal.

The government's large role in marketing both inputs and products has also been reflected in a pervasive system of price controls. In general, government crop procurement programs have paid prices well below the world price and, where private markets exist for amounts above the delivery quotas, government prices have also been below these free market prices. The margins have varied substantially from crop to crop and from year to year, given that fluctuations in the world market are generally much greater than those in official prices. Implicit taxes on cotton and rice have been particularly heavy, while prices for other crops (notably maize and wheat) as a rule were close to world levels, and some prices (i.e., sugarcane in recent years) exceeded world levels.

To balance the price-based taxation of agricultural production, the government has continually subsidized input prices, including those for fertilizer, some pesticides, grain and cotton seed, and animal feed concentrates. The degree of subsidization relative to the world price has varied with changes in world price levels. Egyptian farm-gate prices for inputs in real terms have remained relatively stable or fallen.

Fertilizer and other input subsidization places a heavy burden on the Egyptian treasury. The need to limit costs of the subsidy forces the government to restrict the quantity of fertilizer and pesticides available, using a complex allocation system based on the crop rotation in each governorate and application rates recommended by the Ministry of Agriculture. Because these rates are well below the farmers' preferred application levels at the official price, an active black market exists for fertilizer and some pesticides, with prices approaching or at times exceeding world levels.

The Proposed Approach to Reform and Progress to Date

AID and the GOE have agreed for several years on the necessity to move away from the current system of subsidies and controls, in order to achieve greater flexibility in the market for inputs, reduce government costs, and correct distortions in the economic incentives facing farmers. Progress in implementing the reform has been slow. At the time APAP began analyzing the impact of fertilizer market reform in late 1986, very little concrete progress had been made in liberalizing the market or in implementing the closely linked changes in fertilizer pricing. While the fertilizer price was increased on several occasions, increases lagged inflation. Private trade, both importation and domestic trade, (in all but foliar fertilizer) continued to be illegal.

APAP was asked to consider the implications of a reform to eliminate the public sector role in marketing fertilizer by removing the fertilizer subsidy, eliminating quantitative restrictions on availability, and shifting responsibility for marketing and distribution to the private sector. Because the study was carried out as part of the design for a new, private sector fertilizer plant in Upper Egypt, the study focused on Upper and Middle Egypt. The report provided analysis of alternative approaches to implementing these changes, including their impact at the farm level, because planning for the reform had not progressed to the point of specific design.

APAP Experience and Lessons Learned in Supporting the Reform

APAP focused on analyzing three issues: (1) impact on farmers of a change in price and distribution mechanisms for fertilizer; (2) feasibility of privatizing distribution and implementation alternatives for accomplishing this change (including both policy and non-policy changes); and (3) impact of the reform on other elements of the rural institutional structure, notably the Bank itself. The study used a linear programming model of the farm sector in Upper and Middle Egypt to estimate the degree to which changes in

fertilizer price and availability would affect farmer decisionmaking and income. The modeling work was complemented by three analyses: an evaluation of marketing costs based on costs in the existing public sector system, an analysis of black market transactions at the farm level (based on a survey conducted by a local consulting firm), and interviews with private sector representatives and Bank officials at all levels of the system.

The study reached the following conclusions with respect to the privatization of fertilizer distribution.

- Privatization cannot be implemented in an orderly fashion until the fertilizer pricing issue is resolved, at least to the point where demand for fertilizer does not exceed the supply.
- Although private fertilizer transactions have been illegal for more than 20 years, private sector willingness to enter the market is very strong at both the wholesale and retail levels.
- Constraints differ at the two ends of the system, however. Storage and transport facilities will be a constraint at the national and regional wholesale level (but not at the village retail level), while working capital is likely to be a serious constraint at the retail level (but not for major dealers). Indeed, the working capital constraint is sufficiently severe to suggest that vertical integration of dealer networks is highly likely, creating a danger of uncompetitive marketing practices by a limited number of major dealers.
- Reform (the combined impact of privatization of distribution and removal of the subsidy) will have a large and potentially disastrous impact on the Bank, which, in addition to losing a major source of revenue (fertilizer sales commissions), may see a decline in the demand for credit and in loan repayment as farmers shift to private suppliers.
- Withdrawal of the Bank from input marketing may also have a major effect on a wide range of input-producing parastatals (seed, fertilizer, etc.), which have heretofore depended on the Bank to provide a guaranteed market and which will have to institute a range of changes in their marketing and pricing structures.
- The critical importance of preserving the Bank as a source of rural credit and the very real danger of the development of an uncompetitive market structure (particularly in remote areas) suggest that the Bank should maintain a role as a transitional measure, in order to monitor the reform and provide some degree of control over the process.

This final conclusion, which ran counter to the APAP team's initial expectations, highlights the importance of considering the transition process, particularly when a long period of market suppression has led to distortions in both public and private sector institutions that cannot be undone quickly or automatically.

Although the reform is still underway, three additional lessons with potential relevance to other cases can be drawn from the initial analysis.

- **Impact of policy constraints on privatization:** Privatization may be difficult or impossible to achieve without first removing other policy constraints to free market operation, particularly those on price.
- **Importance of impacts on other elements of the agricultural system:** Privatization of a critical element of the agricultural marketing system, such as fertilizer distribution, is likely to have far-reaching impacts on both public and private institutions in other parts of the system, particularly where the degree of market distortion ex ante is high.
- **Potential superiority of partial privatization alternatives:** In some cases, many benefits of privatization -- greater flexibility to respond to market conditions, economically appropriate incomes "at the margin," and reduced government expenditures -- can be achieved with partial privatization rather than full transfer of responsibility for marketing to the private sector.

4.2.2 Togo: Privatization of Grain Exports

Government Involvement in Agricultural Marketing

Togolese government involvement in agricultural marketing is undergoing thorough reform. Supported by USAID as well as the World Bank and the IMF, the reform is aimed at transferring responsibility for exporting grain to the private sector, limiting involvement of the public sector to regulation and protection of the public interest, and improving incentives to farmers based on closer correspondence to world prices.

Prior to the reform, state involvement in the export of both traditional export crops and basic food commodities was extensive. Export of traditional cash commodities (coffee, cocoa, and cotton) was the exclusive responsibility of OPAM, a parastatal organization that used its price-setting power to impose a heavy tax on producers of these crops. The government extended its control over agricultural marketing to include food crop exports with the creation of TOGO GRAIN in 1971. This parastatal was formally charged with regulating the domestic food market by buying and selling in both domestic and international markets. Its responsibilities were extended in 1980 to include sole rights to export food crops, including maize, sorghum, rice, tuber crops, and legumes.

Despite the official ban on private exports, the private sector continued active in international trade as an extension of its dominant position in the domestic market. Togo's long borders and proximity to countries with strong import markets for local food commodities made it virtually impossible for the government to eliminate private trade, particularly in years of comparatively high production (and therefore low domestic prices). Estimates of the volume moving through these informal channels are not available. Restrictions are believed to be effective in eliminating large-scale sales, while allowing small-scale operations to proceed effectively unhindered, a situation that does not promote either investment or greater organization in the grain trade.

Proposed Reform Approach and Progress to Date

Growing concern over the poor financial performance of TOGO GRAIN and recognizing the need to encourage private sector activity led the government to adopt a series of reforms in the mid-1980s aimed at reducing the role of TOGO GRAIN and expanding that of the private sector. TOGO GRAIN's intervention in the domestic market was limited to maintaining a 10,000-MT food security stock as part of the World Bank-financed Second Structural Adjustment Credit. As a transitional measure, TOGO GRAIN served as the agent for private exports of maize in 1985 (although the quantity, less than 2,000 MT, was minimal).

The government's main concern regarding privatizing of food crop exports revolved around the fear that poor market organization and higher prices in neighboring countries would lead, in the absence of regulation, to excessive exports, reducing domestic supplies below national needs and raising prices to unacceptable levels. Therefore, the proposed approach to reform called for annual estimates of production and the "exportable surplus," based on standardized estimates of national consumption per capita, losses, and seed requirements. Annual calculations of the amounts that could be exported without, in the view of the government, endangering Togolese food security were to be the basis for issuing export licenses to traders. AID supported this approach with a \$7-million grant under the African Economic Policy Reform Program (AEPRP). This enabled the government to develop the necessary estimates of exportable surpluses, but the government insisted that these estimates be approved by the Council of Ministers, which introduced substantial delay. The availability of licenses was not adequately publicized, moreover, and the ministry responsible for issuing the license encountered difficulties in finalizing procedures. As a result of these and other implementation

problems, no licenses had been issued as of the end of 1987, although licenses were expected to be issued in early 1988. Thus, it is not possible to determine whether the reform effort will be successful in promoting private sector exports or greater marketing opportunities for farmers.

APAP Experience and Lessons Learned in Supporting the Reform

Although concrete progress toward the privatization of exports has been somewhat limited, three lessons can be drawn from the experience.

- **The value of data in support of decisionmaking:** The availability of timely information on food crop production is viewed by the government as providing critical protection against disruption of the market by "unorganized" private sector activity.
- **The primacy of domestic security concerns:** Regardless of potential economic gains to farmers, traders, or the economy as a whole, the government was not willing to consider liberalizing exports unless domestic food security -- and with it some degree of control over politically sensitive food prices -- could be assured.
- **Influence of parastatals other than that being privatized:** The inability of the national credit system (the CNCA) to channel credit to traders and farmers for storage posed a problem for the development of private trading over the longer term.

4.2.3 Mali: Privatization of Domestic Grain Trade

Government Involvement in Agricultural Marketing

Like many governments of West Africa, the Government of Mali has long been active in marketing both domestically produced and imported grain. Prior to the reform, private trade in domestically produced grains (primarily rice, millet, maize, and sorghum) was illegal, both within the domestic market and for export, while private grain imports were controlled by a system of licenses and tariffs. A parastatal, the Office des Produits Agricoles du Mali (OPAM), had the sole legal right to operate in the domestic grain market, in cooperation with state-sponsored cooperatives and party organizations at the local level. However, reality of the market differed sharply from the legal structure. Despite the extensive system of roadblocks and other controls operated by the "economic police," private grain traders conducted most trade in coarse grains. OPAM's marketing system handled only about 2-3 percent of national grain output, less than a fifth of the estimated quantity moving through market channels in an average year.

The rice market was considerably different due to the dependence of Malian rice production on government subsidies paid through the parastatal structure. In the heavily controlled environment of the rice-producing parastatals, farmers had no choice but to sell their paddy to parastatal mills in order to pay their water use charges, nor were more attractive prices available on the private market. Private importation of rice and wheat, by contrast, was well established under the control of a handful of major traders operating in competition with the public sector (which handled primarily food aid).

Urban retail markets were similarly mixed. An extensive system of state-sponsored cooperatives and special outlets (e.g., for the military) existed, selling at subsidized prices, side by side with a large and apparently competitive network of private wholesale and retail merchants.

The Proposed Approach to Reform and Progress to Date

The reform program (the *Projet de Restructuration du Marché Céréalière* or (PRMC) took a two-pronged approach: (1) liberalization of the market to allow the private sector a greater role, while preserving the public sector's role as a guarantor of prices to both consumers and producers; and (2) gradual movement of prices in public sector channels to approximate market levels in order to reduce economic distortions and budgetary costs associated with OPAM operations. Parastatal operations were also to be rationalized, cutting staff and privatizing specific functions (e.g., trucking) to increase flexibility and reduce operating costs.

The reform was to be implemented in three stages over a five-year period. In the first stage, restrictions on private trade in coarse grains were to be removed. In the second stage, prices in the public channel were to be increased (the target level became a matter for dispute, as discussed below). In the third stage, marketing of domestically produced rice was to be liberalized, accompanied by other changes to enable rice-producing parastatals to operate in a liberalized environment.

The first stage was implemented smoothly. Private grain trading was legalized and operations of the economic police essentially ceased. Progress was slowed on the second stage by a combination of fiscal restrictions imposed by the IMF and severe drought conditions in two of the first three years. The government's inability to raise wages and widespread concern over consumer welfare during a national emergency reduced willingness to raise food prices. Government procurement prices were raised,

although they did not keep pace with free market prices, which shot up in the face of the drought. These changes raised the budgetary costs associated with grain marketing, an increase financed by donors supporting the reform (see APAP Staff Paper 12 for a more complete discussion of the use of food aid to finance the reform program). When the government finally raised prices to both consumers and producers, in the fourth program year, the increase unfortunately coincided with a bumper crop and a dramatic fall in market prices. As a result, OPAM's support price for coarse grains far exceeded the open market level, and private traders rushed to sell to the government. The amounts offered OPAM over-ran its purchasing power and storage space, forcing a sudden halt to the purchasing program, which, in turn, established private markets for several months. The larger-than-expected purchases, coupled with prices to consumers well above market prices, put OPAM in a poor position, leaving large unsold surpluses at the end of the year.

Work on the third and most difficult stage proceeded despite the problems encountered in the second stage, but progress was slow. Here again, the program ran afoul because of unforeseen changes in market conditions largely outside the control of either the government or the reformers, in this case, the fall of the world rice price. Decline in the import price for rice further reduced the attractiveness of parastatal rice to private marketers and increased the subsidy that would have been required to make such sales economically feasible. Given the government's inability to increase the subsidy and unwillingness to channel subsidies through the private sector, the privatization of parastatal rice marketing remained a dead letter for several years. Only recently, as world prices recovered somewhat, have renewed efforts to implement this aspect of the reform begun to bear fruit.

Rationalization of OPAM costs proceeded fairly rapidly during the initial years of the program, as the agency's large staff was successfully reduced and the truck park was scaled back in favor of contract services with the private sector. Progress slowed during the drought, however, as both donors and government increased demands on OPAM to take the lead in distributing increased quantities of donor food aid commodities.

This experience highlighted the difficulty of identifying the appropriate scale of operations for OPAM (or eliminating the agency altogether), given the overlap between its roles as a regulator of the domestic grain market for producers (which the Government and the donors agreed should be redefined, although they sometimes disagreed as to how) and as an implementing agency for disaster relief (which all parties viewed as a necessary and appropriate state function in Mali). These roles naturally alternate during

years of high and low production, with OPAM's price-supporting function becoming more important in years of high production and its relief function more important in years of low production. Since both functions require the agency to maintain the capacity to store and distribute grain, full use of OPAM capacity (and reduction of operating losses) is made more difficult by a reduction in state involvement in the grain market during good years.

APAP Experience and Lessons Learned in Supporting the Reform

APAP assistance to the Mali reform program consisted of two short-term assessment teams, one assigned to propose benchmarks for the program's upcoming second five-year phase and the second assigned to evaluate progress during the program's fourth year. The first assignment also included an analysis of private sector marketing capacity and an evaluation of the impact on OPAM finances of alternative approaches to involvement in the grain market.

The PRMC experience provides three lessons of potential relevance to other reform programs aimed at parastatals heavily involved in critical domestic markets such as that for grain.

- **The impact of changing market conditions on reform:** changes in domestic and/or international market conditions are likely to have a major effect on reform progress, requiring that benchmarks be set flexibly with provision for periodic renegotiation or program redesign.
- **Conflicts between noncommercial functions and reform objectives:** When a parastatal performs both commercial functions (e.g., grain marketing) and noncommercial functions (e.g., disaster relief), transfer of the commercial functions to the private sector may not necessarily be consistent with an overall rationalization of parastatal operations or reduction of operating losses.
- **Importance of understanding the structure of markets being privatized:** Technical differences between the various market environments in which the parastatal operates (differences between the relatively open market for coarse grains and the parastatal-dominated market for rice in Mali, for example) greatly affect the feasibility of privatizing different parts of the parastatal's operations.

4.3 LESSONS LEARNED FROM PRIVATIZATION EXPERIENCE

4.3.1 Lessons Learned

Although worldwide experience with privatization is still fairly limited outside developed countries, it is nonetheless possible to draw a number of overall lessons from the experiences of APAP and others.

- **Divestiture is only one of many options, and not necessarily the best one.** Once the privatization program goal is defined as the establishment of competitive, efficient, and effective agricultural markets, it becomes clear that the fate of the specific parastatals involved in agricultural marketing is a peripheral issue. In some situations, sale of the parastatal(s) may be an appropriate element of privatization and may be the best way to eliminate inappropriate government involvement in the marketplace, while in others, divestiture may not be feasible or even desirable. In other words, divestiture per se is neither a necessary nor a sufficient condition for successful privatization.
- **Policy and non-policy measures to strengthen private marketing channels are often a necessary accompaniment to measures aimed at limiting the government's role in the market.** Long-term domination of agricultural markets by the public sector prevents the development of strong private sector marketing institutions, a situation that is not remedied quickly or automatically by removing policy barriers. In many cases, private firms need assistance (credit, for example) in order to rapidly increase their capacity to replace the public sector. Equally important, public sector control of agricultural markets is often backed by a range of policies and regulations that inhibits profitable private operations and must be removed in order for competitive markets to flourish. The specific conditions necessary to ensure competition in any given case, however, are difficult to define.
- **Not all government intervention in agricultural markets is inappropriate; mechanisms must be found to continue legitimate functions after privatization.** Even where parastatal domination of the market can clearly be shown to distort and inhibit agricultural markets in ways that run counter to the interests of farmers, consumers, and the government itself, certain elements of the parastatal's operations may represent legitimate and important government functions that should be preserved. A grain marketing parastatal, for example, may serve as the government's main implementing agency for functions that cannot be performed effectively by the market, such as disaster relief or targeted food subsidies to the poor. The reform program must consider how these functions are to be financed and implemented after privatization has been accomplished.

As the three case studies in the previous section show, privatization of a parastatal that controls operations of a key agricultural market, such as the market for food grains, can be substantially more complex than privatization of enterprises in other sectors such as transport, other service, or industrial firms, or even elsewhere in the agricultural sector, such as state farms.

4.3.2 Practical Issues in Structuring Donor Support to Privatization

While it is difficult to generalize about the design of privatization programs, which must respond to the specifics of each particular situation, two broad guidelines deserve emphasis:

- Successful privatization requires a **thorough understanding of the specific market structure** in which the reform will go forward, including both national and international markets and the regulatory and technical environments in which they operate; and
- **Timing of reform is a delicate but extremely important factor**, and one that can be greatly affected by unforeseen changes in market and political conditions.

As emphasized above, getting rid of the parastatal (or selling it to private interests) is only half the problem. Privatization will not generate the economic and developmental benefits if the end result is not a competitive market for the good or service previously provided by the parastatal. This outcome depends as much on the nature of the economic environment in which privatization takes place and on the way the program is implemented as it does on reducing the parastatal's role.

In order to guide and shape development of the market during and after privatization, it is necessary to focus on and understand both sides of the equation: the nature of the market as well as the parastatal. However, in many situations, there is little or no information available on market actors (traders at the retail and wholesale level, for example), on the conditions under which they operate (access to credit and information, for example), or the degree of competitiveness that currently exists. Given this lack of concrete data, advocates of privatization may be too eager to idealize the private sector, dismissing problems, while opponents of privatization distort the situation in the opposite direction, painting a picture of the private sector as a den of thieves, mountebanks, and monopolists. These divergent views make it difficult to agree on the expected impact of privatization and the measures necessary to shape it in desired directions. Therefore, generating improved information on the private sector is an important element of the total reform effort, particularly at the design state.

Issues related to timing are also key to designing and implementing reform programs to privatize and liberalize agricultural markets. At least three timing issues deserve mention: (1) gradual versus "overnight" approaches; (2) integrating privatization with other reforms; and (3) the role of the parastatal during the transition to an open market regime.

Although in principle, a parastatal can be liquidated or sold in a matter of a few months, a broader, market-based perspective suggests the need for a more gradual approach. Particularly where the parastatal has played a dominant role in a key agricultural market, time is needed for private sector firms to grow into the market share released by the parastatal. This time will reduce the chance of serious market disruption, which could discredit the reform, and ensure that private participation growth takes place on a sufficiently broad base to yield a competitive outcome.

Privatization is often part of a complex reform package that may involve changes in macroeconomic prices (interest rates, exchange rates, and so on), as well as reform in agricultural prices and other aspects of government operations. These changes are likely to have a significant impact on private sector participants in the market, raising the question of whether the private sector will be able to respond effectively to opportunities created by privatization if the other reforms have not been implemented. Equally important, it may be politically or practically impossible to shift to a private sector approach (to private distribution of agricultural inputs, for example) without first removing distortions in the price system. Failure to coordinate privatization of maize processing with the reduction of maize subsidies in Zambia, for example, was a major factor contributing to disruption of the market, which ultimately discredited the entire reform process.

When a privatization program target is a parastatal plagued with serious operational and financial difficulties, a key issue is whether to sell the operation for whatever it will bring (as a going concern or as a collection of assets) or to focus initial efforts on improving parastatal performance in order to pave the way for a later sale on more favorable terms. While there is no simple answer to this question, the decision depends in part on whether factors impeding parastatal profitability can be addressed without first removing the parastatal from the political and administrative constraints giving rise to the problems in the first place (control over sales prices, employment levels, and wages, for example). Equally important, the impact of continued market domination by the parastatal on other private actors in the system must also be considered.

These issues suggest the complexity of designing and implementing privatization programs in agricultural markets, which are themselves complex and highly political. APAP's experience in supporting specific privatization and market liberalization programs underscores the need for flexible and innovative approaches to respond to this complexity.

CHAPTER V

FOOD AID AND POLICY REFORM¹

By

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5.0 INTRODUCTION

Using development assistance to promote desired policy reform in developing countries is becoming an increasingly important form of foreign aid. The World Bank has increased its volume of lending for policy reform and structural adjustment and AID is providing more support for broad sectoral development programs and for policy reform. While most such support of policy change takes the form of financial assistance, food aid, especially from the United States, is also being used to promote policy change in a number of countries. This chapter explores how food aid can be used in policy-based development assistance, U.S. food aid programs that can be used to support policy change, and APAP experience in Africa and Asia in using food aid to promote policy reform.

5.1 POLICY REFORM AND THE FOOD POLICY DILEMMA IN DEVELOPING COUNTRIES

Economic crises in the past decade made macroeconomic adjustments necessary in many developing countries. The need for adjustment arises from many sources. Short-term balance of payments problems, large and long-term indebtedness, drying up of external finance, misguided past policies, and stagnating income growth all contribute to the need for adjustment programs.

Developing countries have undertaken both short-term and long-term measures to overcome these difficulties. Adjustment programs include immediate stabilization programs to correct balance of payments and budgetary difficulties, as well as longer term policy measures to stimulate income growth and to correct fundamental distortions in the economy.² Adjustments are made largely through manipulation of macroeconomic policies (monetary, fiscal, exchange rate, foreign trade, wage and price policies) in an

¹Originally issued as APAP Staff Paper No. 12, March, 1988.

²A distinction is usually made between stabilization, which includes measures to correct acute foreign exchange deficits, and structural adjustment, which refers to measures to stimulate long-term economic growth.

effort to promote efficient use of available resources. Basic macroeconomic "prices" governments can influence to promote efficient resource allocation are: 1) foreign exchange rates, 2) interest rates, 3) wage rates, and 4) urban-rural terms of trade (e.g., food prices). In large measure, long-run economic growth depends on incentives created by these macro prices.

Growth maximizing adjustment policies often include relatively high foreign exchange rates (achieved by devaluing the local currency), relatively high interest rates, relatively low wage rates, and relatively high food prices. Low wage and high interest rates discourage capital intensive production and encourage employment; expensive foreign exchange increases competitiveness of domestic versus imported foodstuffs (particularly in instances where an overvalued exchange rate has artificially shifted relative prices in favor of imports); and relatively high food prices provide incentives for increased productivity and adoption of new technologies in farming, thereby increasing purchasing power in rural areas.

Many of these changes are costly to developing country governments, both politically and financially. Higher food prices, for example, raise the cost of government price support and procurement programs and generate pressures for increases in government pay scales.

For poor consumers, the short-term consequences of these policies can be severe, as well. Their food consumption can be severely affected by high food prices that accompany adjustment policies. Poor families in developing countries often spend from 50 to 70 percent of their incomes on food and live at or below minimally acceptable nutritional levels. Unless compensatory measures are implemented, increased food prices can translate directly into increased hunger and poverty for such at risk groups. Although in principle, long-run economic growth will bring increased employment and greater nutritional security to the poor, the short-term welfare and distributional consequences of incentive pricing policies can be so painful as to make them politically or morally unacceptable.

Adjustment programs usually entail policy changes in addition to increasing food prices that will negatively affect the poor. Reduced real wages and declining government expenditures on social programs can also have severe short-term effects on the poor. In addition, deterioration in nutrition, health, and education can result from adjustment programs and can have long-run negative implications for human resources and economic growth. The following sections describe ways in which food aid can facilitate economic reform programs by enabling governments to ease adjustment pains for individuals and governments.

5.2 USING FOOD AID TO PROMOTE POLICY REFORM: GENERAL CONSIDERATIONS

5.2.1 Food Aid Resources

Food aid³ can provide three types of resources: food commodities, local currencies generated through the sale of these commodities, and foreign exchange saved if the food aid displaces commercial imports. These resources can be used in various ways to support structural adjustment in a recipient country.

Food commodities can be directly supportive of structural adjustment programs by helping to ensure the availability and stability of food supplies during periods of economic austerity that may result from such a program. A large infusion of concessionally financed or donated commodities in a developing country can serve to moderate food price inflation and stabilize prices. Alternatively, commodities can be targeted to economic or social groups, for example, poor urban households, that may be particularly disadvantaged by structural adjustment. Targeting (discussed below) suggests a potential role for donated commodities to meet the needs of poor nutritionally-at-risk groups in the populations of countries undertaking structural adjustment.

The sale of food aid by governments generates local currencies that can be used in a number of ways to support policy reform. Local currencies can be used, for example, to lower food prices to consumers, pay higher prices to producers, reduce producers' costs through input subsidies, and make investments in research, extension, or physical infrastructure. The impact of such local currencies on policy reform depends on the recipient governments' policies and conditions the donors attach to the use of the currencies.

Food aid can influence policy reform by providing balance of payments (BOP) support. Governments are able to save foreign exchange that otherwise would have been spent on commercial food imports. The impact of such BOP support on policy reform depends on the use of the freed foreign exchange to support the purposes of the structural adjustment program, and on the leverage gained by helping a government address an urgent problem.

³See APAP Staff Paper No. 12 for a detailed description of current U.S. food aid programs.

Food aid resources -- commodities, local currencies, saved foreign exchange -- can be used singly or in combination to support structural adjustment. For example, food aid resources can be used to support a dual price structure in which some portion of the physical commodities are distributed to target groups at below market prices while the remainder is sold to the general population at market prices. The local currencies can be used to support producer prices, and, if there are foreign exchange savings from food aid having displaced commercial imports, these can be invested in sectoral development activities.

5.2.2 Application Issues

As discussed at greater length in the following section, a number of factors condition the use of food aid to promote economic policy reform. Among the most important are whether or not the recipient country has a food deficit, the fungibility of both local currencies and saved foreign exchange, and the potential disincentive effects of food aid.

Local currency proceeds are fungible. Governments may decide not to use them to support policy reform but instead allocate them to other purposes that do not support structural adjustment programs. Similarly, foreign exchange freed by concessional imports is also fungible. Its impact on structural adjustment depends on its allocation to support the purposes of the structural adjustment program. Although the impact of balance of payments support of food aid can be positive in terms of policy reform, it can also make governments complacent about policy reform, by enabling them to avoid making adjustments in exchange rates or by reducing financial and political pressures to invest in domestic food production capacity.

U.S. food aid legislation itself contains internal contradictions that, in principle, bear directly on the potential positive and negative effects of the aid. The 1977 International Development and Food Assistance Act imposed two stipulations on P.L. 480 assistance. The first stipulation was that recipient countries certify the availability of adequate storage space to prevent spoilage of donated commodities. The second was that local distribution of food aid was not to create a disincentive to domestic production or marketing. These two stipulations are known as the "Bellmon determination."

In economic terms, the stipulation that food aid not create disincentives to local production generally requires that aid not increase the total supply of food (i.e., the aggregate supply function must not shift out, creating downward pressure on domestic prices), or, at a minimum, that food aid be distributed only to consumers who otherwise would not have purchased food nor grown it themselves. Maintaining a constant aggregate food supply in the presence of large infusions of food aid requires that the food aid substitute for commercial food imports. That substitution of concessional for commercial imports is the source of the balance of payments support conveyed through food aid, as well as a key to minimizing production disincentives. Yet such substitution is explicitly prohibited by another cornerstone of P.L. 480.

P.L. 480 assistance is required to be "additional" to commercial imports. Under the terms of P.L. 480, recipient countries must commercially import a certain quantity of food in order to qualify for food aid. That quantity -- the Usual Marketing Requirement (UMR) -- is generally based on the average level of commercial imports over the past five years. In other words, while the Bellmon determination requires that aggregate supply remain constant, the UMR requires that aggregate supply shift out by the full quantity of food aid. This both depresses domestic prices (violating the Bellmon determination) and eliminates most balance of payments support. Food aid may still support balance of payments in situations where circumstances require a country to import commercially beyond its UMR or when food aid terms delay the country's foreign exchange expenditure; but the primary beneficiaries of UMR's are consumers in recipient countries and producers in exporting countries. As Clay and Singer point out, the UMR requirement could conceivably penalize countries that increase domestic production, since the reduction in imports might have to come from food aid rather than from commercial imports.⁴

5.3 FOOD AID AND AID'S AGRICULTURAL POLICY REFORM EFFORTS

In the past few years, AID has recognized that price distortions and other agricultural policy problems are principal barriers to greater agricultural production and meeting food needs. And AID missions are giving increasing attention to how food aid can be used to promote more desirable agricultural policies. The following sections describe various aspects of the U.S. food aid program that condition its use in supporting policy reform.

⁴Edward Clay and Hans Singer, "Food Aid and Development: The Impact and Effectiveness of Bilateral P.L. 480 Title I Type Assistance," (Institute for Development Studies, UK, Feb., 1982).

5.3.1 Self-Help Programs

Initially, the main mechanism for incorporating policy concerns into food aid programs was inclusion of policy changes in "self-help" measures that countries are required to undertake pursuant to a P.L. 480 agreement. This approach was partially successful in situations where the host government was receptive to policy change, as seems to have been the case in India during the 1960s, but results overall have been disappointing. Self-help measures have a number of drawbacks (discussed below), including the limited leverage that food aid carries, the lack of clearly assigned responsibility for negotiating and monitoring food aid agreements in AID or in the host government, and the proliferation of issues dealt with under the rubric of "self-help."

In practice, the political difficulty of withholding food, and the fact that bilateral aid agreements are often negotiated as dollar flows that include P.L. 480, tend to limit food aid effectiveness as leverage for policy reform. Even in countries with large Title I programs, such as Pakistan and Egypt, it has proven politically difficult to withhold food aid in response to poor government performance in meeting the self-help conditions. Food aid has occasionally been delayed, but rarely cancelled, with the result that the credibility upon which AID leverage might be based is limited.

The task of negotiating P.L. 480 self-help measures does not have a clearly defined institutional home in AID or the host government. Negotiating responsibility tends to be assigned on an ad hoc basis with frequent changes in the office and personnel responsible. Within the AID mission, negotiation and monitoring of self-help measures receives little priority and rarely commands sufficient backup resources to undertake the data collection and analysis that would be needed for a successful effort.

Although food and agricultural policy still predominates, the list of self-help measures included in Title I agreements has expanded to include a wide ranging agenda of policy and non-policy reforms. This practice has strained the capability of AID personnel responsible for monitoring and has made it difficult to determine unambiguously whether government progress has been satisfactory.

5.3.2 Alternative Program Structures

Based on its experience with food aid programming and the use of self-help provisions, AID has begun a number of experiments to identify other ways to harness the considerable resources represented by P.L. 480 assistance to promote policy reform.

These experiments have been concentrated in Asian and African countries where food problems are particularly challenging and where P.L. 480 has an especially large place in the total assistance program. Specific approaches now being tried include the following:

- **Multi-year agreements** to increase the potential for leverage and to facilitate negotiation of more ambitious reform programs with realistic time tables (such agreements have been used particularly in chronic food deficit countries in West Africa, such as Mauritania and Mali, under the provisions of Section 206 of P.L. 480 Title II, but recent changes in 206 have broadened eligibility);
- **Multi-donor programs**, such as the Cereals Market Restructuring Project in Mali, to improve coordination among donors in the policy dialogue and generate a greater level of assistance to promote reform;
- **Creation of buffer stocks** using food aid as a means of encouraging governments to transfer responsibilities to the marketplace by providing insurance against food emergencies during years of severely reduced production. This is one of the roles played by Title III in Bangladesh;
- **Programming food aid reflows** (local currencies) to finance analysis and data collection in support of policy reforms. Peru and Sudan have done so, and APAP economists have recommended that Guinea do so, as well; and
- **Financing reform implementation costs**, using food aid itself or local currencies generated by food sales to underwrite the cost of increasing procurement prices, transferring payment of consumer subsidies from the farmers to the federal treasury as a transition measure, and experimenting with open market operations (such as withholding and injecting commodities on open markets to enforce price bands).

The degree of success achieved with these and other measures has varied greatly. In some countries, there has been considerable success, while in others the reform process has been slower than expected or non-existent. It is too early to draw definite conclusions from this experience, but several tentative findings can be offered, pointing to both positive and negative aspects of using food aid for agricultural policy reform.

- **Leverage for policy reform is enhanced when food aid has a high priority for the host government relative to other forms of aid that are highly restricted in their use and slower to disburse.** Whether the food aid will meet emergency needs or finance basic food commodities that the country cannot import commercially, the government has a strong interest in avoiding disruption or even delays in shipment. Consequently, there may be more leverage associated with food aid, assuming that the U.S. Government is willing to bear the political costs of withholding assistance.

- **The magnitude of aid flowing through P.L. 480 channels relative to other forms of assistance makes food aid an appropriate tool for securing policy reform.** While development assistance (DA) levels have generally stagnated in real terms, food aid has been a growing component of total assistance, giving it greater importance in the total assistance program. For some missions, food aid may represent a resource several times larger than total DA. Moreover, the management burden associated with non-emergency food aid can be much lighter than for many other development activities, creating the possibility of freeing up more mission resources to support the policy reform process than would be possible for an equal commitment of project funds. (This potential may not be realized if, as noted above, responsibility for managing the P.L. 480 program is not clearly assigned.)
- **Food aid can be directly linked to many (but not all) reforms in the agricultural sector.** For example, if food aid supplies a large share of the edible oils in a given country, donors are in a strong position to argue for changes in the oil products sector (as they have done successfully in Pakistan, for example). Similarly, food aid is less appropriate for dealing with policy problems further back on the production chain, such as land tenure, input supply and pricing, or farm labor law.
- **Where there is a strong link between food aid commodities and policies to be addressed, opportunities may arise to program the commodities in direct support of policy reforms.** For example, food aid can be substituted temporarily for local production to supply government sales or distribution channels, permitting greater involvement by private traders in farm level procurement during the early stages of a transition from public to private sector marketing. Depending on prices and foreign exchange availability, food aid in the form of food commodities may be more attractive for this purpose than local currency assistance.
- **Food aid can foster donor coordination.** Such coordination is vital to the success of policy dialogue, but mechanisms to achieve it are generally ill-defined. The widely recognized need for close coordination of emergency assistance provides opportunities to broaden this cooperation to include policy dialogue. (As discussed below in the case of Mali, donor coordination can be a two-edged sword when perspectives on policy reform differ.)

4.3 LIMITS ON FOOD AID'S ROLE IN SUPPORTING AGRICULTURAL POLICY REFORM

Balanced against these positive considerations there are several aspects of food aid that limit its flexibility and effectiveness in addressing major policy problems.

- **Food aid levels are determined largely on the basis of political considerations and on food needs (in the case of Title II emergency assistance), and therefore may be difficult to adjust in**

response to changing policy conditions. It is close to impossible to withhold food, particularly in the face of an emergency situation, simply because the host government has not lived up to its reform commitments. Food aid is also difficult to withhold in the context of an assistance package negotiated as a dollar amount, in which food aid is one component.

- **The leverage value of additional food aid varies greatly depending on local production conditions.** In a bad year, the host government may accept almost any conditions in return for increased food aid allocations. In a good year, food aid may be viewed as too much of a good thing. Recent experience in both food deficit and food surplus countries indicates that sudden increases in production are at least as difficult to manage from a policy perspective as drops in output. Additional food aid is far from welcome when the country is already struggling to absorb its own grain surplus.
- **Food aid can easily have disincentive effects on local production.** Host governments can argue convincingly that donors are inconsistent when they demand increases in grain prices while simultaneously offering grain supplies that would exert downward pressure on prices. Here again, the local production and consumption situation is critical. In years of poor production, local prices may rise to levels that all parties agree are too high, but years of good production may bring a farm crisis in the form of falling producer prices, bulging warehouses, and excessive government expenditures for procurement. The role of food aid in this situation is unclear.
- **Resources other than food are needed to carry out many reform programs.** Food aid by itself does not provide resources to finance, for example, the dollar component of policy studies or investments that may be a necessary component of reform. For this reason, food aid is generally less suited to complex institutional reforms involving, for example, increased efficiency in state operation of irrigation systems, because it cannot supply the technical assistance, training, and infrastructure investments needed to achieve lasting progress.

Many negative features of food aid can be overcome or at least mitigated by careful design of the policy reform program. For example, some missions are currently experimenting with ways to incorporate dollar assistance with food aid to build a more flexible assistance package.⁵ These efforts underscore the need to recognize that food aid can be a valuable tool in promoting reform, but that it is rarely enough to complete the job.

⁵USAID/Guinea, whose experience in using food aid to support economic policy reform is discussed below, is endeavoring to use its large Title I and Section 416 Food for Progress programs and its African Economic Policy Reform Program grant in ways that are mutually reinforcing. AID/Mali is designing a similar agreement.

5.4 USING FOOD AID TO PROMOTE FOOD SECURITY

The experiences of Guinea, Mali, and Bangladesh described in Section 6 illustrate several ways in which food aid can be used to promote food security within the context of structural adjustment programs. Food insecurity arises essentially from a lack of purchasing power on either the national or household level. This section approaches the question of food aid in relation to food security from two perspectives: national versus household food security, and chronic versus transitory food insecurity.

5.4.1 National versus Household Food Security

Food security subsumes both national and household food security notions. National food security refers to aggregate food supply relative to aggregate food demand on a national level, and the country's ability to withstand shocks to that balance. Household food security, in contrast, refers to the ability of households in each segment of society to acquire an adequate supply of food either through market or nonmarket channels. National food security does not assure household food security, though in the long-run it is a necessary condition for household food security. In both cases, security implies not only adequate food supplies but also reasonable stability of access to those supplies.

Food Aid and National Food Security: The primary contribution of food aid to national food security lies in increased ability afforded policy makers to pursue growth oriented policies, the major aim of structural adjustment programs. Food security must ultimately rely on equitable economic growth.

The main sources of food insecurity at the national level are unstable domestic production and unstable foreign exchange reserves. A country that routinely imports food to meet marginal domestic consumption requirements is vulnerable to upward shocks in world market prices for those imported commodities. Yet, variable domestic production levels make some degree of international trade a requirement of national food security. The ability to respond to shocks in either domestic production or world markets relies largely on access to sufficient foreign exchange to permit imports (and the total foreign exchange bill for food imports) to balance the price or quantity variation.

From a national perspective, food aid is only useful as a source of foreign exchange support to the extent that it displaces commercial imports. Food aid allows countries to use foreign exchange that would have been spent on food imports for some other purpose. Thus, food aid is more useful in maintaining the stability of aggregate

food supply than in increasing aggregate supply quantity. There are studies suggesting that food aid may simply displace commercial food imports and thus have no effect on aggregate supply or prices.

The contributions of food aid to food security thus depend largely on the uses to which the saved foreign exchange and the local currency generated by the sales of food aid are put. National food security is best attained by long-term equitable economic growth. Thus to contribute to national food security, food aid resources must be used simultaneously to promote growth oriented policies and to protect the poor from the short-term consequences of long-term growth strategies. Potential conflicts between the food security of specific vulnerable groups within society and national food security are illuminated by the notion of household food security.

Food Aid and Household Food Security: Household food security focuses on the access of individual households to adequate food supplies. Though all households share an interest in promoting long-term national food security, policies implemented to promote national food security will affect various households differently.

Higher food prices to promote increased agricultural production almost invariably accompany structural adjustment programs, and can have severe consequences for urban consumers and the rural landless. In many countries, including Bangladesh, these groups already subsist at below-acceptable nutritional levels. Policies to promote long-term national food security are directly harmful to the food security of these vulnerable households. Yet at the same time, the household food security of millions of small farmers would be immediately enhanced by higher food prices. This situation is further complicated by the fact that most members of society are neither pure consumers nor pure producers. Many "consumers" may produce some portion of their own food, and many "producers" may be net purchasers of some foods. In general, however, policies necessary to promote long-term national food security reveal fundamental conflicts among the short-term national food security interests of different segments of society.

The contribution of food aid to household food security thus depends on the extent to which food aid resources are used to protect the food security of vulnerable groups in the context of macroeconomic policies conducive to long-term economic growth.

Food insecurity at the household level is caused by low or unstable household incomes. Increases in food prices depress consumers' real incomes (just as production shortfalls depress producers' incomes). Variability in household food bills, resulting from either fluctuating import prices or fluctuating domestic production, thus destabilize real incomes. This variability affects both producers and consumers.

Food aid can be used in several ways to promote household food security. One commonly-used approach is to use food commodities in direct feeding programs. Bangladesh's Vulnerable Group Feeding Program exemplifies this approach. A similar, though more productive approach is to use food directly as a wage good, as is done in Food for Work programs. In Bangladesh, both Food for Work and Vulnerable Group Feeding programs are effective, but limited in scale, largely by administrative constraints. Donated foodstuffs can also be used to protect the nutritional welfare of poor consumers through targeted ration programs such as Modified Rations in Bangladesh. Similarly, donated food can be used to stock "fair price shops" in which access to subsidized food is restricted to target groups.

The contribution of food aid to household food security also depends on uses made of local currency proceeds and saved foreign exchange. Local currency proceeds can help support the costs of crop procurement in defending incentive floor prices for producers, as discussed above. Local currency can also help defray budgetary costs of administering food ration schemes. At the same time, foreign exchange and local currency can be invested in employment generating activities to support and stabilize the purchasing power and real incomes of vulnerable groups. Adequate and stable incomes are the ultimate source of household food security.

Food aid's role in achieving household food security is clearly limited: food aid cannot substitute for large-scale employment generation and balanced economic growth. Food aid's contribution to household food security lies in the marginal effect in cushioning individuals from short-term fluctuations in their real incomes or food supply. Except in the case of massive emergency relief, food aid's main contribution does not consist of direct feeding programs, but, rather, in providing governments an additional resource with which to promote stability in production and consumption.

5.4.2 Chronic versus Transitory Food Insecurity

Another useful distinction between types of food insecurity is made in a recent World Bank study, Poverty and Hunger.⁶ In this study the Bank distinguishes between chronic and transitory food insecurity. To adopt the World Bank's definitions, chronic food insecurity is a "continuously inadequate diet caused by the inability to acquire food," while transitory food insecurity is "a temporary decline in a household's access to enough food." This distinction is also useful in thinking about the contribution of food aid to food security during a period of structural adjustment.

Chronic Food Insecurity

Among the three case studies presented here, Bangladesh best exemplifies a situation of chronic food insecurity. Over 60 percent of Bangladesh's population consumes less than the FAO recommended minimum intake of 2020 calories per day. Bangladesh confronts a structural food deficit in which a majority of the population consumes "a continuously inadequate diet."

The World Bank report's general prescriptions for reducing chronic food insecurity include: 1) equitable economic growth, 2) increased food supplies, 3) subsidized consumer prices, and 4) targeted income transfers to the poor. Food aid can facilitate implementing of these prescriptions.

The first, equitable economic growth, serves to increase incomes of the poor. Yet, economic growth is at best a long-term remedy, and if no measures are taken to ensure that benefits of growth are shared, there is no guarantee that food security for the poor will improve. Although, properly invested food aid resources may facilitate economic growth, food aid in a country like Bangladesh can provide more tangible relief from chronic food insecurity by supporting the other prescriptions suggested in the World Bank's food security document.

The second prescription --increasing food supplies-- operates either by increasing the quantity of imports or by increasing domestic production. Food aid is clearly a source of food imports, but, as discussed above, it is far from clear whether food aid necessarily results in a net increase in the quantity of food imported. Yet, even if food aid does not have a negative impact on domestic prices and production, the question still remains as to whether food aid can have a positive effect on production. In this respect,

⁶World Bank, Poverty and Hunger, (1986), p.1.

food aid's benefits are indirect, and come principally in the form of local currency support for other production incentive programs.

There are several indirect ways in which food aid can help support increased domestic food production. Farmers tend to increase productivity in response to increases in the ratio of output prices to input costs, as well as in response to increases in the stability of that ratio. Government crop procurement programs to defend pre-announced floor prices for producers, such as the one implemented in Bangladesh, can be used to stabilize farmgate prices. The crop procurement program in Bangladesh has been constrained, in part, by a lack of local currency to purchase crops. Local currency proceeds generated by the P.L. 480 Title III program help to defend producer floor prices. Similarly, local currency proceeds from food aid sales are used to increase the ratio of output prices to input costs by providing the cash for input subsidies.

If foreign exchange is saved through food aid it can be invested in programs promoting increased domestic food production. Lack of improved inputs is an important constraint on Guinean rice producers, for example. Many necessary inputs must be imported. In the short-run, they could be paid for out of foreign exchange saved by food aid imports, while local production builds up.

The way in which the foreign exchange generated by food aid is invested is among the most important determinants of the developmental contribution of food aid. However, the availability of food aid also creates the danger that governments will put off investments in domestic production, and simply rely on the short-term price benefits of food aid. Prior to 1985 and the inauguration of Guinea's economic policy reform program, the continuing availability of food aid was an important factor in enabling the country's government to avoid dealing with domestic food supply problems. A Stanford University study, "The Political Economy of Rice in Asia", found other evidence of this effect.⁷

Chronic food insecurity among poor groups can also be reduced through subsidized consumer prices. Food aid can facilitate subsidized consumer food prices in two ways. The government can simply sell the donated commodities at below market prices, or it can use the local currency proceeds from the sale of food aid to subsidize food

⁷Peter Timmer, et. al., "The Political Economy of Rice in Asia," Stanford University, the Food Research Institute, 1978.

prices by directly paying some portion of the sales price. Applied in a market-wide context, both of these routes have substantial budgetary and economic implications. Such programs divert large amounts of resources from alternative uses, and benefit non-needy consumers along with needy ones. They also may send inefficient price signals to producers and consumers throughout the economy and maximize the disincentive effect of food aid. Targeting consumer subsidies mitigates these undesirable consequences of across-the-board food subsidies.

Transitory Food Insecurity

Transitory food insecurity arises from the variability of world food prices, foreign exchange earnings, domestic food production, and household incomes. Transitory food insecurity can also arise during the course of structural adjustment. Reducing transitory food insecurity requires measures to stabilize both domestic food supply and food demand. Food aid can support both types of measures.

Three primary avenues are available for stabilizing domestic food supplies: stabilization of domestic production, stabilization with buffer stocks, and stabilization through trade. The preceding sections discuss in detail potential applications of food aid resources in stabilizing domestic food supplies. Food aid's potential for stabilizing demand is more limited.

Stabilizing domestic demand requires more than price stabilization. Variability of household incomes accounts for a significant portion of demand instability. Thus, to a large extent, stabilizing demand for food requires programs or policies to stabilize incomes. For agricultural producers, income varies with fluctuations in farmgate prices and quantities produced and marketed. Food aid can assist in providing the financial resources to support procurement programs; yet, food aid lends little to efforts to compensate for production variability. For consumers, incomes fluctuate in response to employment and prices. Food aid has little direct effect on employment, though it can make available foreign exchange that can be invested in labor-intensive industrial activities. However, programs that use food aid to stabilize retail food prices can help stabilize consumers' real incomes, since food typically receives a 60-70 percent budget share among the poor.

5.5 COUNTRY CASE STUDIES

This section summarizes APAP experience in three countries to illustrate the discussion presented above and in Section 7. Guinea demonstrates food aid's role in promoting macroeconomic reform; Mali illustrates food aid's application in restructuring a domestic cereals market; and Bangladesh demonstrates food aid's role in promoting food security.

5.5.1 Food Aid and Macroeconomic Policy Reform in Guinea

Since the death in 1984 of its first President, Ahmed Sékou Touré, Guinea has embarked on a period of profound economic reform. In contrast to the heavily planned and state managed economy of the Sékou Touré era, the Government of Guinea (GOG) has in recent years been a ready participant in donor sponsored policy reform programs.

The Food Situation

Rice is the main staple food in Guinea, but quantitative information about Guinea's rice situation is virtually nonexistent. Available data is outdated and of highly questionable accuracy. Moreover, the current transitional period in Guinean agriculture further obscures the present food grain situation. The 1986 fall harvest was the first of the post-Sékou Touré era. This section uses a compilation of available data to present a broad statistical overview of rice supply and utilization.⁸

Estimates of total cereal production in 1985 range from 1,193,000 MT to 1,375,000 MT. Of this total, milled rice is estimated to comprise from 248,000 to 330,000 MT. Thus, rice accounts for 20 to 25 percent of total cereal production. Guinea also imports significant quantities of the rice it consumes. In 1985, rice imports were roughly 90,000 MT, of which 21,400 MT were P.L. 480 concessional imports. For 1986, rice imports were expected to reach 200,000 MT, of which 30,000 are P.L. 480 Title I and another 30,000 were Section 416 Food for Progress donations. These figures suggest that rice imports supplied one quarter to one third of total rice consumed in 1985, and over one third in 1986. Of total rice imports, one quarter to one third were from U.S. food aid.

⁸See "Food Aid and Policy Reform in Guinea," Abt Associates Inc., October 1986.

Data on food consumption are as scarce and unreliable as those on production. Rice consumption since 1980 has varied between 250,000 and 300,000 MT. Each year roughly 70,000 MT goes to nonfood uses, approximately 50,000 are wasted and 8,000 are retained for seed. There is no reliable estimate as to the percentage of domestically produced rice marketed off the farm. However, there is general consensus that the country's market for rice is clearly divided between Conakry, the capital, and the rest of the country. Conakry consumes essentially imported rice, while the rest of the country consumes domestic rice. Yet, imported rice is widely available in the interior, and domestic rice is available in Conakry. In most cases, domestic rice is preferred over imported and commands a premium of around 20 percent over imported rice.

Alternative estimates of rice requirements can be generated by assumptions regarding population and per capita consumption. These estimates place rice needs between 484,000 MT and 576,000 MT, with roughly one third being consumed in urban areas.

These estimates of rice needs, coupled with alternative scenarios regarding domestic rice production, yield estimates of a rice deficit ranging from 154,000 MT to 328,000 MT. This is approximately one third of total rice consumption—roughly the same proportion that is imported, and the same proportion assumed to be consumed in urban areas.

Policy Environment

Guinea is in the midst of profound political and economic change. Since December 1985, the GOG has undertaken major economic reforms and structural adjustment. Achievements under this program have been impressive, including macroeconomic policy reform, significant structural adjustments, civil service reform, and governmental reorganization.

Macroeconomic reforms included a massive devaluation of the Guinean franc and establishing a currency exchange rate more nearly reflecting market demand. Exchange rates are determined in a weekly foreign currency auction. In a related move, the GOG closed all government owned banks and allowed them to be replaced by a private banking system. The civil service reform includes substantial progress toward reducing the number of civil servants from 90,000 to 60,000. The guarantee of government employment to graduates of institutions of higher education was lifted and new admissions to these institutions limited. A number of ministries were reorganized to make them more efficient and privatizing state owned and managed industries has begun.

Significant reforms have taken place in the agricultural sector. The GOG abolished more than 300 state farms and 345 regional state trading companies mandated to control trade in agricultural products. Structural adjustments include the abolition of the public food distribution system as well as eliminating of state trading companies which held monopolies over food imports. In addition, forced delivery of food and livestock products by peasant producers and roadblocks to free movement of goods and people throughout the country have been eliminated. Producer prices for coffee and palm nuts were increased tenfold, and the GOG eliminated the subsidy on rice consumption. The continued existence of parastatal companies for coffee and palm products is a subject of current discussion between the GOG and the World Bank, which is pressing for their elimination.

The GOG appears committed to further policy reforms including adjustment of commodity prices to reflect import parities, privatization of remaining public companies, decentralization of government functions, market pricing for public utilities and transportation services, simplification of tariff and customs procedures, and promulgation of new mining, commercial, and investment codes. Despite this progress, there remain several areas of economic policy that may constrain rice production and marketing.

Food Aid and Policy Reform

U.S. food aid in Guinea consists primarily of two programs: P.L. 480 Title I and Section 416 Food for Progress, both providing rice to the GOG. The sale of P.L. 480 generates a pool of local currency resources, which can either be "programmed" for specific uses agreed upon by USAID and the GOG, or can become general budget support for the GOG. P.L. 480 Title I has been operating in Guinea since the early 1960s, during which time imports consisted almost entirely of rice. These imports averaged 22,500 MT annually during the seventies, and since 1984 have been approximately 30,000 MT per year. The market value of current Title I assistance ranges from six to eight million dollars per year.

The Food for Progress program, at the time of this writing, was in the first of three years of operation. The GOG and USAID agreed on a package of reforms (described in the previous section) in return for which Guinea was to receive 30,000 MT of rice in 1986, 40,000 MT in 1987, and 30,000 MT in 1988.

USAID has also introduced a non-food aid program with important implications for agricultural policy: the African Economic Policy Reform Program (AEPRP). The AEPRP is a cash grant of ten million dollars to the GOG to encourage continued policy reform. Approximately one fifth of the AEPRP will be devoted to technical assistance to support and guide economic and agricultural policy reform.

Together, these programs provide USAID two basic types of resources with which to negotiate with the GOG: foreign exchange support and local currency proceeds from the sale of commodities in Guinea. AEPRP funds will be disbursed in tranches contingent upon the fulfillment of pre-negotiated policy reforms. P.L. 480 and Food for Progress provide local currency which USAID and the GOG can agree either to program for investments in specific development projects or to leave as general budget support in return for policy reform. U.S. food aid should strike a balance between these alternative uses in order to provide the GOG sufficient incentive for policy reforms as well as the fiscal resources to implement those reforms.

Two broad factors condition the competitiveness of domestic rice production vis-a-vis imported rice (given local costs of production): the retail prices of imported rice and the margins associated with marketing domestic rice in Conakry and other urban markets. These two factors are subject to constraints ranging from the condition of roads in the interior to the price of foreign exchange. The primary constraints to agricultural development in Guinea fall into two categories: policy constraints and fiscal constraints. With its combination of leverage for policy reform and a pool of local currency, food aid can be useful in addressing both of these problems.

Policy constraints on Guinea's rice sector include: overvaluation of the Guinean franc, licensing of rice traders, and the possibility of subsidizing the sale of imported rice. Overvaluation of the Guinean franc undermines the competitiveness of local rice producers against already inexpensive imported rice. This is the result of the artificial shift in relative prices in favor of imported rice created by currency overvaluation. In September 1986, the overvaluation of the franc was about 15 to 20 percent. In addition, the gap between official and black market exchange rates was increasing, in contrast to their previous post-devaluation equality.

In an effort to protect Guinean farmers from "unscrupulous" rice traders, the GOG restricts the number of traders by requiring licenses to purchase rice from farmers. It is likely, however, that this restriction actually undermines competition among traders, and thus minimizes their incentives to bid up farm gate prices to competitive levels.

Subsidized sales of imported rice exacerbate the shift in relative prices in favor of imported rice. This has not been a problem recently, since an agreement between the World Bank and the GOG requires that a fixed retail margin be added to the c.i.f. price of imported rice (most of which is sold for higher prices on the black market anyway). Yet it remains a policy to be guarded against.

In view of both the important role of imported rice as competition for domestic production and the low international rice prices prevalent in 1986/87, some GOG intervention to limit rice imports may be appropriate in the short run. A levy on rice imports that varies with c.i.f. rice prices could help stabilize domestic rice prices and protect domestic producers from cheap rice imports. Complementary policy reforms could include maintaining the Guinean franc at its shadow exchange rate and eliminating licensing of rice traders. The policy leverage that accompanies food aid can be directed to promote these types of policy reforms.

Exchange rate and commercial policies influence the domestic price of imported rice. These are essentially policy problems. The other half of the equation pertains to fiscal and physical constraints that exaggerate domestic marketing costs and thus increase domestic producers' difficulties in competing with imports. Local currency proceeds generated by the sale of food aid can be invested to ease these constraints. Potential investments of local currencies include: improving the road system, monitoring domestic and border agricultural prices on a continuing basis, conducting an agricultural census, as well as supporting agricultural research and extension programs. Local currency proceeds could also contribute to small farmer or trader credit programs.

Evaluation of the Experience

Experience in Guinea with linking food aid and policy reform can be discussed only in broad terms. At the time this analysis was completed, the GOG was still in the process of implementing reforms and at least another year was needed before one could make judgments as to the results of those reforms. One can say, however, that the existence of food aid was facilitating the GOG's efforts towards reform by providing the assurance that consumer prices for the basic staple food would not soar as producer price ceilings were lifted. The food aid program also gives USAID/Conakry a voice in the current agricultural policy dialogue, and provides both foreign exchange support (both directly and through import savings) and local currency resources necessary to underwrite some necessary reforms and investments.

5.5.2 Cereals Market Restructuring in Mali

In 1981, major food donors in Mali joined together to assist the Government of the Republic of Mali (GRM) in implementing a five-year program of food policy reform, the Projet Pour la Restructuration du Marché Cerealier (PRMC). The program was designed to improve farmer incentives, liberalize the grain market, and reduce government expenditures on cereals marketing. It represents an innovative and ambitious attempt to link food aid and policy reform. In consequence, the experience during its first five year phase merits close examination for lessons that may be applicable in other situations.

The Food Situation

Mali's food policy dilemma is representative of the extremely difficult problems facing countries of the Sahel. Like many of its neighbors, Mali for many years pursued a policy of low farm gate prices for grain in order to supply low cost food to urban areas. This policy was accompanied by heavy reliance on the government for most marketing functions, with state sponsored consumer cooperatives in the urban areas, a parastatal monopoly grain purchasing organization (the Office des Produits Agricoles du Mali or OPAM), economic police to enforce the state's monopoly, and large state run projects to expand rice production.

Coupled with severe and repeated droughts in the 1970s, these policies had a disastrous impact on Mali's agricultural production. Output failed to keep pace with burgeoning population, now numbering approximately 8 million, and the country became increasingly reliant on food imports. Lacking resources to finance commercial imports, the GRM was forced to call on the international donor community to supply cereals needed to meet the country's basic food needs.

Regardless of the policy regime in the agricultural sector, food production in Mali fluctuates widely. In a poor year, even the best producing regions are in a deficit position, while the drier regions of the north are always net importers of grain. In a good year, the southern grain belt produces a surplus that meets most of the nations' requirement but only in the very best years does Mali reach self-sufficiency in coarse grains. Despite massive investments in irrigation, it is never self-sufficient in rice.

Policy Environment

Mali is currently in the midst of a difficult transition from heavy state regulation of grain trading to a system that relies primarily on the market and the operation of private grain traders. The official state monopoly on coarse grains trade was lifted in the early 1980s. Although in fact the GRM had never handled more than a small fraction of this trade, eliminating the economic police encouraged the private sector to become more active in the millet, sorghum, and corn markets. Despite liberalization, the GRM continues to set official prices at the farm and retail levels, and with donor support attempts to defend these prices by buying and selling grains. The official farm level price has risen steadily throughout the reform period. The bumper crops of 1985/86 and 1986/87 demonstrated that the GRM does not have sufficient resources to support a price well in excess of the market established level, and that attempting to do so can be very costly for the GRM and disruptive of the market.

Progress has been slower in liberalizing the rice market, where production is dominated by parastatals with production costs far in excess of current world rice prices. The parastatals have stoutly resisted giving up their comfortable marketing relationship of guaranteed sales at a guaranteed price with OPAM, and indeed it remains unclear how the parastatals could operate without continued massive subsidies.

On the consumer side, the GRM delayed raising prices during the severe drought of the early 1980s, despite heavy international pressure to do so. As a result, subsidized sales of internationally donated commodities continued during the early years of the reform. After three years of discussions, the GRM finally made major increases in consumer prices in 1985/86, when the drought ended. Neither the donors nor the GRM foresaw the steep fall in free market prices that occurred when local production rose. This precipitous decline in market prices left the official retail price far above the market and left OPAM holding large stocks that could not be sold at a price that would cover acquisition costs.

Finally, with regard to trade, the drop in the world rice price, fuelled in part by the declining value of the dollar, exacerbated the weak competitive position of Malian rice. The tariffs imposed on rice imports, with IMF support, proved insufficient to redress the balance. As of February 1987, it remained uncertain whether funds would be forthcoming from either the public or private sector to buy up the 1986/87 domestic rice crop. Private export of coarse grains continues prohibited.

Food Aid and Policy Reform

Food aid played a large role in the PRMC reform process. Under the leadership of the World Food Program (WFP), PRMC donors made a multi-year commitment of food aid to support the reform, primarily grain. The imported food was sold by OPAM to generate funds to underwrite the reform process. During the first three years of the reform, the funds were used almost entirely to cover the operating deficit of OPAM. This deficit was affected adversely by the reform, due to the growing gap between the farm price, which was raised annually to improve farmer incentives, and the consumer price, which was not raised at all.

When the consumer price was finally increased, food aid monies were redirected to finance the governments' post-harvest buying campaign in order to shore up the support price. Although it was hoped that the increase in consumer prices would spell the end of OPAM deficits, the decline in the open market price virtually eliminated OPAM sales, with the inevitable result that very large deficits were registered for 1985/86 and 1986/87. As of February 1987, the outcome was unclear, as PRMC'S funds were tied up in grain purchased locally during the previous year's buying campaign and alternative sources to fund the deficit had not been identified.

Significant progress had been made in other areas, however. The active dialogue initiated by the PRMC was instrumental in reducing the operating costs of OPAM, encouraging it to take measures such as selling off its truck fleet and reducing personnel in return for guaranteed financing of the deficit from food aid sales.

Donors were also successful in programming food aid and other resources to establish a grain security stock, which is managed separately from other OPAM grain and maintained as protection against future production short-falls. The security stock is not intended to replace international food aid, but rather to meet short-term needs while international assistance mobilizes.

Evaluation of the Experience

The PRMC's first five years illustrate some strengths and weaknesses of using food aid to promote policy reform. Perhaps the most important lesson is that food aid is a more useful tool for reform during periods of shortage than in times of surplus. During drought years, the PRMC played a major role in encouraging the government to raise official producer prices toward market levels, a move supported by donors on the grounds

of improving producer incentives as well as eliminating market distortions. The availability of donor grain was also instrumental in convincing the GRM to eliminate restrictions on private trading.

When market prices fell during the past two years, however, the PRMC was caught unprepared. Mali faced a situation of near self-sufficiency, if not actual surplus, and the need for donor grain was greatly reduced, thus eliminating the PRMC's mechanism for generating funds. Moreover, donors disagreed as to whether the GRM should support a producer price well above the market level, despite the losses entailed, or move the official price downward to reflect market conditions, recognizing that resources were simply insufficient to maintain producer incentives at the previous level. As of February 1987, this issue remained unresolved, although all parties agreed that food aid alone could not provide the resources needed to sustain producer prices.

Slow progress in liberalizing the rice market was also cause for concern, but the appropriate remedies appeared beyond the scope of PRMC action. On the one hand, food aid could not supply resources needed to transform the rice producing parastatals into economically solvent operations. On the other hand, a ban on rice imports to protect inefficient domestic producers would run counter to the PRMC's principle of market liberalization.

Despite these setbacks, the PRMC made a major contribution to policy reform in Mali. The support offered by food aid and aid generated local currencies was critical in consolidating the move toward free markets. Mali is entering a stage in the reform where the issues are too complex and difficult to be tackled successfully using food aid alone. Nonetheless, the successes achieved in the early years ensure that food aid will continue to be important to Mali's food policy reform as well as to the nation's food security strategy for the foreseeable future.

5.5.3 Food Aid and Food Security in Bangladesh

The Food Situation

Food grain production in Bangladesh is dominated by rice, which accounts for roughly 95 percent of the total. Rice also accounts for around 85 percent of consumption. Since the mid 1970s, wheat has accounted for an increasing portion of food grain production and together with rice, comprises 99 percent of total food grain production and consumption. Minor food grains produced include millet and barley.

Total food grain consumption in Bangladesh in 1982/83 was approximately 15 million tons, 85 percent supplied domestically with the remainder coming from imports, mostly food aid. Since the mid 1970s, food grain production increased by 3.5 percent per year.

The agricultural sector dominates Bangladesh's economy. Roughly 83 percent of the population lives in rural areas. Rural people represent 86 percent of the civilian labor force, 59 percent of which is directly employed in agriculture. As one of the world's most densely populated countries, Bangladesh experiences tremendous pressure on limited land resources. Moreover, distribution of land ownership and wealth is highly skewed: 4 percent of the population owns 32 percent of the land, while nearly half of the rural population is landless or "functionally" landless, owning less than half an acre. This situation contributes to severe seasonal unemployment and an extremely low standard of living for the rural poor. Current national per capita income is approximately \$125 per year.

Bangladesh's poverty contributes to widespread malnutrition: the World Bank reports that less than 40 percent of the population is adequately nourished by the minimum daily consumption of 2020 calories while 45 percent of the population consumes under 1650 calories daily. Ninety percent of the malnourished live in rural areas, with the landless and informal nonfarm labor (32 percent of the population) surviving on merely 1500 calories per day, the minimum level necessary to sustain body weight.⁹

Increasing agricultural production is a high priority for Bangladesh. The population growth rate of roughly 2.6 percent annually, implying a doubling in 27 years, further reinforces the need for continual increases in agricultural production. Yet, increased production alone is not a panacea. The poor must be able to purchase the increased production. Rural employment is thus a central concern, since the fundamental need is to raise the purchasing power of the rural poor. In this regard, too, greater production is not a panacea: the extremely high ratio of labor to land creates a situation in which production growth alone will not absorb labor at the rate at which the labor force is growing. Indeed, the World Bank estimates that the rate of growth in rural employment is only one-third the rate of growth in agricultural output.

⁹World Bank, "Bangladesh Food and Nutrition Sector Review," Report No. 4974-BD, 31 January 1985, p.3.

The severity of these structural characteristics leaves little room to maneuver agricultural policy: the large number of marginal consumers imposes a severe constraint on the Government's ability to provide production incentives through output price supports, if price supports are financed through higher retail prices. Bangladesh is virtually unique in the severity of its food policy dilemma.

Policy Environment

In order to deal with the food situation, the food policy of the Government of Bangladesh (BDG) is built on three pillars: partial producer price stabilization, consumer price stabilization, and food rations.

Price Stabilization: The principal tools with which the BDG has pursued partial stabilization of producer and consumer prices are procurement of stocks on the open market at a pre-announced floor price and release of stocks onto the market by means of Open Market Sales (OMS) at prices which parallel fluctuations in open market prices.

OMS and crop procurement together act to define a loose range within which grain prices may fluctuate. The OMS policy protects consumers by providing a buffer against large jumps in market prices. It is important, however, to recognize the limits to what OMS can accomplish in protecting low income consumers. The benefits of price stabilization accrue mainly to consumers who can exercise effective demand at market prices. While OMS stabilizes food prices, it does not do so at prices sufficiently low to ensure the neediest consumers access to a nutritionally adequate diet. The budgetary requirements of stabilizing prices at sufficiently low levels would make this prohibitive. This strongly suggests the need for consumption interventions targeted to the poorest consumers to complement the OMS.

Price protection for producers operates through government procurement of food grains at pre-announced prices. The policy of crop procurement serves two principal functions: 1) prevent prices from falling dramatically immediately after harvest, thereby protecting small farmers who must sell at that time to meet pressing cash needs, and 2) reduce risks of volatile market prices that can inhibit farmers from investing in more productive technologies. Crop procurement also serves the important purpose of generating security cereal stocks. These stocks provide the foundation for the BDG's consumption side interventions through the Public Food Distribution System (PFDS) of which OMS is one part.

Four factors impede effective crop procurement by the BDG: 1) the BDG faces political pressure to provide inexpensive food in the cities, and defending price floors for farmers makes it more difficult for the BDG to accommodate this pressure; 2) the BDG faces tight resource constraints (too tight to meet full procurement obligations in good production years); 3) current regulations and agreements limit channels through which the BDG can manage and dispose of stocks once procured; and 4) when food imports are high the BDG can find itself holding large stocks that it can only dispose of by taking large financial losses.

Food Rations: Bangladesh uses several methods of food rationing to target distribution. Benefits of the current PFDS flow disproportionately to groups in the population not in nutritional need: the army, public employees, and urban dwellers. Thus, BDG resources are used to subsidize consumption of groups whose nutritional security is relatively high and who already benefit from OMS operations. Meanwhile, large numbers of the rural poor remain malnourished.

The PFDS consists of both untargeted and targeted food distribution channels. Untargeted channels, such as OMS, affect prices for the entire market. Targeted channels focus benefits on a particular subset of consumers by excluding others through some mechanism. Target groups are then sold limited quantities of food at fixed prices.

Untargeted OMS operations and sales to flour mills accounted for 15 percent of total off-take from the PFDS in 1984/85 (excluding relief activities). Four targeted channels that serve relatively well off consumers absorbed 37 percent of nonrelief off-take. Two relief channels specifically targeted to the poorest and most vulnerable consumers, Modified Rations and Food for Work, accounted for the remaining 46 percent of total off-take from the PFDS. Modified Rations and Food for Work are the only PFDS outlets targeted specifically to poor consumers, yet there remain numerous unresolved difficulties in channeling this food into rural areas. Moreover, these rations are merely a palliative that fails to address the long-run necessity to increase the purchasing power of the poor.

Food Aid and Policy Reform

USAID's food aid program in Bangladesh consists of P.L. 480 Title III and Title II. Of these, Title III (Food for Development) is the primary vehicle for policy reform. Title II donated commodities are used in Food for Work and other PVO-managed projects. Title III aid is used in Bangladesh as an infusion of resources to support policy reform.

This resource transfer generates a degree of policy leverage, which USAID can apply in its policy dialogue with the BDG. The policy leverage derives from the debt forgiveness provision of Title III in which the U.S. Government and the BDG agree upon the uses of the local currencies to support agricultural development. Further leverage comes from the fact that annual disbursements of Title III assistance are contingent upon U.S. certification that the BDG is in conformity with the conditions and local currency uses (self-help provisions) included in the concessional sales agreement.

Title III commodities and local currencies fit well with the BDG's efforts to stabilize producer and consumer prices. The local currency proceeds generated by the sale of the commodities ease the cash flow constraints on crop procurement. At the same time that Title III helps to support production incentives, the donated foodstuffs support a nutritional floor for poor consumers. Modified rations can be increased by the sale of Title III food, which can also be used to stock fair price shops and other targeted distributional mechanisms. In addition, donated commodities can help build buffer stocks that provide the foundation for the BDG's OMS program to cushion upward price shocks in food markets during poor production years.

A combination of policy leverage and resource transfers can also be used to promote other policy reforms. Policy reform on the consumption side might include shifting the balance of ration off-take away from non-needy consumers. This could be accomplished gradually by adopting a policy of raising the ration price offered to non-needy consumers through the four rations channels not targeted to the poor. On the production side, crop diversification could also be supported by Title III. The primary inputs in a crop diversification program in Bangladesh are crop research, extension services, and appropriate pricing policies. Title III local currency proceeds could be used to defray the costs of increased crop research for pulses and oilseeds (the leading candidates for crop diversification) as well as to support the cost of improved extension services. Price policies with a focus on creating relative output prices conducive to pulse and oilseed production could be added to the agenda for USAID's policy dialogue with the BDG.

In sum, food policy in Bangladesh is severely constrained on all fronts: Bangladesh is heavily dependent on foreign markets, prices are unstable, most producers and consumers already live on the margin of survival, government revenue is quite limited, foreign exchange reserves are low, and the nutritional situation is dire. The severity of this situation creates many opportunities for an infusion of resources, such as P.L. 480

Title III, to ease these constraints on food policy. By providing the ability to separate producer and consumer markets, food aid can help the BDG both to support intensified agricultural production and to protect nutritionally vulnerable consumers. At the same time, Title III food aid eliminates a portion of the price variability of food imports and lightens the pressure on foreign exchange reserves.

Evaluation of the Experience

The experience with food aid and policy reform in Bangladesh has been largely positive. With the support and encouragement of the Title III agreement, policies to promote partial market stabilization have operated effectively. The OMS program in particular has been well implemented and succeeded in cushioning upward price shocks in consumer food markets. On the production side, BDG performance on crop procurement has not been consistent. For example, to minimize purchase obligations in 1984/85 (a year in which stocks were already high), the BDG, for the first time, enforced quality standards which allowed it to refuse large quantities of rice offered it. However, the BDG has been reliable in announcing procurement prices in time to influence farmers' planting decisions. The jury is still out on other proposed reforms.

5.6 LESSONS LEARNED

Experience has shown that while food aid can facilitate broad macroeconomic reform by helping to protect vulnerable groups, it is most effective when directed specifically to support agricultural price reform (which is often a component of broad reform programs). This final section summarizes lessons learned regarding food aid's role in promoting production, maintaining consumption, and stabilizing food markets in general.

5.6.1 Using Food Aid to Support Agricultural Price Reform

Food aid programs can be structured to provide significant support to agricultural price reform. However, experience makes it clear that food aid is not fully interchangeable with financial resources for promoting reform, and it has both advantages and disadvantages which must be considered in designing a reform program.

Appropriateness of incorporating food aid into a price reform strategy depends in part on the kind of price reform problem. Three basic pricing problems arise with respect to food commodities in developing countries.

- **Producer prices are too low.** It is critical to distinguish whether low prices are the result of government intervention (e.g., forced procurement) or whether low prices result from market forces (e.g., weak domestic marketing channels with high transportation costs or low international prices).
- **Consumer prices are too high.** Here again, a critical distinction must be made between a situation where consumers believe prices are too high because they have become accustomed to subsidies and a situation where prices are too high for a significant portion of the population to afford to buy food.
- **Prices are too unstable and too uncertain.** The critical distinctions here from a policy perspective are two-fold: a) is price variability of greater concern between years, during the year, or between regions, and b) if the source of concern is interseasonal variation, is the run-up in prices over the year greater than that needed to cover private sector costs of storage, including capital, risk, and physical losses?

Producer and consumer prices are inevitably in conflict. Higher prices for farmers imply higher prices for consumers, unless government intervention serves to separate producer and consumer markets, providing price incentives to farmers while protecting at-risk consumers from price increases that reduce consumption. Food aid can provide resources to help resolve this fundamental "food policy dilemma," at least in the short run, but few developing country governments have the resources to subsidize prices for either producers or consumers over the long run without disastrous consequences for fiscal stability and economic development (see Chapter III).

It is obviously an over-simplification to speak of "food prices" as though only a single level were involved. In reality, governments may be concerned only with the price of a single staple that has particular political importance, such as rice or bread, and be less concerned about other prices. Distortions in relative prices can have a serious impact on farmer incentives and food security, even when average prices are roughly in line with international levels. Imbalances between the price of domestically produced foods (especially low value crops such as coarse grains) and imported foods (particularly high value commodities such as rice, milk, and edible oil) frequently are a source of concern to policy makers in the agricultural sector.

5.6.2 Food Aid Interventions to Raise Producer Prices

The provision of food aid, assuming it is truly additional to domestic food supplies (as P.L. 480 requires), runs counter to the goal of raising producer prices. Food aid increases the supply of commodities that directly or indirectly compete with local production and therefore tends to exert a downward pressure on food prices. Theoretically,

however, food aid that displaces food imports does not have this disincentive effect. Indeed, some research has found a nearly complete displacement of commercial imports by food aid in selected countries.¹⁰

In principle, the disincentive effect of additional food aid can be largely avoided if the food is directed at population segments not participating in the domestic food market, such as poor consumers who would otherwise not be able to purchase food. Targeting is discussed further in the following section on consumer prices.

Local currency generated by the sale of food aid offers a mechanism for improving producer incentives, via financing for local procurement campaigns. For example, local currency generations can be used to defend procurement prices. Under certain conditions, such government sponsored campaigns can effectively raise prices, particularly in the post-harvest period. These conditions are listed below.

- The program must be implemented immediately following harvest, so that low income farmers who must sell immediately may derive some benefit from the program. Many government programs are unable to mobilize funds, equipment, and personnel to meet this condition;
- Whatever the support price, the government must have sufficient funds to purchase the full amount offered at that price, and to hold the commodities purchased off the market until the open market price rises to the support level; otherwise, as recent Malian experience demonstrates all too clearly, the government's abrupt withdrawal from the market may destabilize prices, causing them to drop sharply and increasing uncertainty throughout the system; and
- The government must be willing and able to bear the very large transport and storage costs inherent in a price support system. Where prices are unstable from year to year, it may be necessary to hold grain for more than one year in order to avoid dumping it on the market and driving prices below the support level.

Recently, some AID missions have begun experimenting with using local currencies generated through food aid sales to finance loan funds to private sector traders, with the aim of increasing their capacity to purchase grain in the post-harvest period. While there is as yet little experience in this area, such schemes appear promising.

¹⁰Lance Taylor, c.f. Peter Timmer, "Food Aid and Malnutrition," International Food Policy Issues, A Proceedings. USDA, ESCS, Foreign Agricultural Economic Report No. 143, Jan., 1978.

A number of mechanisms are available for using food aid as leverage to encourage changes in policies that depress farmgate prices. These measures are particularly appropriate when low prices are the product of an artificially low government procurement price, rather than market forces. Negotiation of a food aid package may then provide opportunities to raise official prices or to reduce the government's involvement in the market.

It should be emphasized, however, that food aid is not useful to address the problem of low farmer prices that arise from fundamental market forces. For example, a country may not have a comparative advantage in a given food crop, or may lose the advantage that it once held, if the world prices for that commodity falls or if domestic production costs rise sharply. Adjustment to increasing competitiveness is extremely difficult, but additional food aid imports are rarely an appropriate response, except as a temporary measure to support more gradual responses to sudden and dramatic changes in comparative advantage. Indeed, any measure to support domestic prices in the face of contrary market forces will be costly to the local economy, regardless of its structure.

5.6.3 Using Food Aid to Reduce the Impact of High Consumer Prices

Food aid should not be used to lower general consumer prices where the underlying economics of a country's agricultural sector require higher prices in order to motivate production. Food aid can and should be used for two special purposes related to price reform.

- Food aid can be used to widen the wedge between consumer and producer prices temporarily, as part of a reform program entailing immediate increases in farm prices and more gradual rises in consumer prices. (This approach was used with partial success in Mali, as described in the Mali case study in Section 6); and
- Food aid can be used to mitigate the negative impact of removing consumer subsidies on particularly sensitive groups. Although this practice should in theory be limited to low income groups who might suffer serious hardship from a sudden increase in food prices, as a practical matter it may be necessary to use food aid to cushion politically powerful groups such as the military and government employees, whose opposition might otherwise endanger the reform. This is clearly what is happening in Guinea where large scale food aid is restraining increases in the price of food for civil servants and military whose real incomes have been reduced by devaluation, removal of food rations and subsidies, and in some cases loss of their jobs. (See Guinea case study in Section 6). In Guinea, the supply assurance and price stability contributed by food aid appears also to be contributing to the political stability needed to make the massive economic policy reform program work.

Targeting of food aid is an important consideration in protecting consumers as well as in limiting disincentive effects to producers. Although targeting through Title II PVO mechanisms such as Food For Work can be fairly efficient, targeting through Title I and Title III programs is more difficult since those programs were not designed to be targeted. Selection of commodities not preferred by wealthy consumers, for example, is one relatively low cost method of ensuring that poor consumers benefit most from subsidized food distributions. Other mechanisms, such as distribution in neighborhoods or regions with high concentrations of low income populations can also be used, although such measures may be difficult to implement. Other targeting mechanisms, equally difficult to implement, include subsidized sales through "fair price shops" access to which is limited by a means test, and targeting by requiring long queues to purchase subsidized food.

As a practical matter, the most vulnerable consumers in the food market cannot be so clearly delineated, particularly when such common social practices as gifts and intra-family transfers are taken into consideration and when adequate allowance is made for the resale of food aid onto local markets. Despite difficulties, targeting food aid is one of the most important measures that can be taken to limit the disincentive effects of food aid.

Targeting may also help prevent host governments from using food aid as a practical expedient to avoid hard choices involved in increasing domestic food production, inasmuch as the political pressure to increase food supplies derives primarily from groups that, directly or indirectly, purchase their food on the market.

5.6.4 Using Food Aid to Stabilize Prices

Price instability is a major problem for both consumers and producers. Its negative consequences for traders and investment in market infrastructure are only beginning to receive the attention they merit. Here again, the source of the instability is an important determinant of both the appropriate policy response and the utility of food aid as a policy instrument.

In general, food aid is most useful as protection against sharp fluctuations in prices caused by crop failure. In countries as diverse as Bangladesh and Mali, food aid has been used to constitute a buffer stock for release in times of shortage. In Mali, the stock offers protection against unexpected drought emergencies, ensuring a steady supply of food in the months required to mobilize foreign assistance. In Bangladesh, food aid is added to the government's total stocks available for release during poor crop years.

If it substitutes for commercial imports, food aid can also help to buffer consumer prices and foreign exchange accounts from fluctuations caused by drastic shifts in international prices.

Food aid is less appropriate as a counter to intra-year price variability, as it is difficult to manage the operation in a way that does not discourage private traders from making investments in storage, and therefore simply make the problem worse over time. Moreover, conditions in many countries make it difficult to time food aid arrivals with sufficient precision to control seasonal variations effectively (a purpose for which buffer stocks are more effective). At a minimum, food aid donors must make a strong effort to ensure that food aid does not arrive in the post-harvest period, thus worsening intra-year price variability.

Finally food aid is generally inappropriate as an element in an inter-year price stabilization program, other than in emergency conditions. Few governments can afford the large expenditures such programs entail, and food aid may encourage them to undertake an unsustainably ambitious program in this area.

5.6.5 Other Uses of Food Aid in Price Reform

There are a number of other ways that food aid can contribute to the reform process through the programming of local currencies. These include:

- Financing for studies of price reform measures and their impacts;
- Financing the collection of data on market prices to improve government and private sector information; and
- Financing investments to reduce marketing costs, including roads and central market facilities.

As discussed in APAP Staff Paper No. 12, recent changes in the food aid legislation have opened up new possibilities for programming food aid. AID missions are continuing to experiment with these mechanisms to identify new ways of supporting policy reform. The mechanisms treated in this chapter are indicative of the innovative approaches being tried and the potential for success; at the same time, they indicate the limits that must be faced in using food aid to promote policy reform.

CHAPTER VI
BUILDING INSTITUTIONAL CAPACITY
FOR POLICY ANALYSIS AND PLANNING¹

By

John S. Tilney, Jr. and Steven Block

6.0 INTRODUCTION

This chapter presents findings about strategies to build institutional capacity for agricultural policy analysis and planning in developing countries. The analysis is based on a series of APAP studies conducted over the past five years which examined the successes and failures of over 100 projects funded by USAID and carried out in the 1970s and 1980s. The projects were either partially or entirely designed to strengthen institutional capacity in agricultural policy analysis and planning.

Our findings combine the results from two separate approaches. The first approach was to summarize the findings of two earlier APAP studies in which large sets of policy and planning projects were compared in terms of their goals and effectiveness.² The second approach was to select a group of particularly relevant projects as case studies and where possible, visit those projects to examine their design, implementation, and impacts, and assess the factors determining their effectiveness.

Case study projects were selected to reflect regional diversity, and recent experience with projects that concentrated on agricultural policy and/or planning. The country case studies include: Egypt, Sri Lanka, Indonesia, Peru, the Dominican Republic, Niger, Zambia, and Cameroon.³

The approach in analyzing these projects is to compare and contrast their design, implementation, and impacts. Examining the effectiveness of each of these elements provide lessons about designing and implementing such projects in the future.

¹This chapter was originally issued as APAP Staff Paper No. 27, August, 1988.

²Abt Associates Inc., Evaluation of Agricultural Sector Planning Activities in Latin America and the Caribbean, Cambridge, MA., June, 1982; and, Abt Associates Inc., A Comparative Analysis of Agricultural Policy and Planning Projects in Africa, Asia, and the Near East, 2 volumes, Cambridge, MA, Oct., 1984.

³Each of these projects is the subject of an APAP Staff Paper.

The following sections describe the context of policy and planning projects, present findings from a broad cross-section of projects, describe the case study projects, and summarize lessons learned regarding strategies to build institutional capacity for agricultural policy analysis and planning.

6.1 THE CONTEXT OF USAID'S AGRICULTURAL POLICY AND PLANNING PROJECTS

6.1.1 Institutional and Political Context

The institutional and political structure of countries in which AID sponsors institution building projects vary considerably. Some countries have reasonably stable, centrally-planned economies with large bureaucracies designed to manage planned economies. Other countries have much more volatile political systems and rapidly changing institutional structures.

Despite the many unique institutional circumstances across countries, developing countries share many common institutional features related to the agricultural sector which influence the opportunities to strengthen institutional capacity. The state plays a dominant role in the agricultural sector of most countries (though the degree of intervention varies across countries). Common interventions by the state include the fixing of commodity prices and control of the agricultural marketing system.

A second common feature is the existence of large and complex bureaucracies and a multitude of parastatal organizations empowered to implement agricultural policies. Within these complex institutional contexts, responsibility for decisionmaking is often quite diffuse, making coordinated efforts difficult to achieve. The tendency is to find numerous policy fiefdoms, with few institutional incentives to cooperate with other agencies. Typically, however, power within the each of the ministries is highly concentrated at the top.

Governments' capacity to undertake agricultural policy and planning varies widely. The weakest indigenous structures are found in Africa; the strongest in Asia.

6.1.2 Economic Context and Agricultural Policy

Virtually all countries in which USAID sponsored institution building projects in the 1970s and early 1980s faced serious economic and agricultural issues. Although the severity and nature of those problems varied considerably by country, the general economic and policy context of the countries was similar. Agriculture dominated the economy of nearly all developing countries, providing income to a majority of the populations and contributing significantly to the GDPs.

Agricultural problems confronting the countries arose from a combination of external market forces and domestic policies not necessarily in the countries' long-term developmental interest. Declining world prices for some countries' primary exports created foreign exchange shortages that made it increasingly difficult to import food and other goods. Questionable internal agricultural policies compounded problems caused by external forces. To varying degrees, governments controlled agricultural prices, often holding domestic producer prices artificially low. These policies benefitted urban consumers, but often undermined the economic incentives necessary to motivate increased production from farmers. Macroeconomic indicators declined in the 1970s and 1980s for many of the countries, economic growth slowed, and the governments' ability to sustain large subsidies eroded. The need and the potential for reformed agricultural policies to address these challenges was clear, and provided the impetus for the rapid proliferation of donor-funded agricultural policy and planning projects.

6.1.3 Levels of Investment in Capacity-Building Projects

From 1970 to 1984, USAID sponsored at least 129 agricultural policy and planning projects (63 in Latin America and the Caribbean, and 66 in Africa, Asia, and the Near East) which had a major objective of strengthening institutional capacity. Over that period, as Table 1 shows, total funding for these projects was over \$465 million: 39 percent in Africa, 26 percent in Asia, 20 percent in LAC, and 15 percent in the Near East.⁴ Of this amount, USAID spent \$278 million, which represents a sizeable investment. In addition, other donors, development banks and host countries also spent many millions of dollars in this pursuit. All these donors and countries continue to make a large investment in building institutional capacity, so it is more than just of academic interest to design and implement projects effectively in the future.

6.2 OVERVIEW OF CASE STUDY PROJECTS

Over the past five years, APAP examined in detail AID-sponsored projects in eight countries. These were primarily institution-building projects. In Africa, projects in three countries — Cameroon, Niger and Zambia — were reviewed and evaluated; in Asia and the Near East, projects in Indonesia, Sri Lanka and Egypt were examined, while in the Latin American and Caribbean region projects in the Dominican Republic and Peru

⁴Latin America and the Caribbean is under-presented in these figures, since budget data was available only through 1982. Funding in other regions is reported through 1984; the present total would be significantly higher, though it is not clear that the regional distribution would be significantly different with more current data.

Table 1

FUNDING OF AGRICULTURAL
POLICY AND PLANNING ACTIVITIES

Region	Number of Projects and Activities	Funding in \$000s				
		AID GRANT	AID LOAN	HOST COUNTRY	OTHER	TOTAL
Africa ¹	40	\$121,193	\$5,400	\$41,491	\$15,275	\$183,361
Asia ¹	16	32,850	16,000	65,189	5,684	119,723
Latin America and Caribbean ²	63	29,986	19,528	38,106	6,011	93,631
Near East ¹	5	52,837	0	11,429	3,606	67,872
TOTAL	124	\$236,866	\$40,928	\$156,217	\$30,576	\$464,587

¹ In Africa, Asia, and the Near East, funding information was available for only 61 of the 66 projects.

² The LAC Region contains 23 small policy analysis and planning activities which were not formal AID Projects. The funding for the LAC Region is from 1970-82, while the funding in the other regions is from 1970-84. Thus, the LAC would be higher if the additional two years were included.

were included (Table 2). This sample provided good geographic diversity as well as a good range of initiatives undertaken. The dollar size of these projects varied greatly from \$700,000 in Sri Lanka to \$26,000,000 project in Cameroon.

This section presents short summaries of four of these case studies. These were selected from each of the regions in which USAID works, and offer particularly instructive lessons about strengthening institutional capacity for agricultural policy analysis and planning. The summaries include examples of institution-building in Egypt, Peru, Sri Lanka and Zambia.

6.2.1 Support to Policy Analysis in Egypt

Since 1977, AID and the Government of Egypt (GOE) have cooperated in implementing two projects in which analysis of agricultural policy issues and development of in-country analytic capacity were central to the project strategy: the Agricultural Development Systems Project (ADS), started in 1977, and the Data Collection and Analysis Project (DCA), begun in 1980.⁵ This case study focuses on the accomplishments of these two projects in the policy arena, their successes and failures in overcoming the difficulties posed by the Egyptian policy process, and the need to match a policy project's strategy as closely as possible to the environment in which it must operate.⁶

ADS, initiated in 1977 with AID funding of \$14.6 million, was intended to mobilize a U.S. university and senior staff in the Ministry of Agriculture (MOA) to provide the technical, analytic, and institutional underpinning for AID's agricultural program, identifying constraints and opportunities in the agricultural sector, developing policies, projects, or programs to address them, and implementing activities ranging from agronomic research and economic analysis to training, project design, and evaluation. The DCA project, initiated in 1980 with AID funding of \$3 million, had a much more limited agenda focusing on: 1) developing the MOA data collection and management capability and, 2) increasing the use of analysis in agricultural policy development and planning.

⁵Further, USAID Cairo is planning to fund a multi-year agricultural economic and statistics component of a new Egyptian National Agricultural Research Project.

⁶This case study is based on a review of the formal project documentation and discussions with project personnel in the field, as well as the author's personal observations while a member of the USAID/Cairo staff (1978-1980).

Table 2: CASE STUDY ANALYSIS PROJECTS

REGION/COUNTRY	PROJECT(S)	DATES	AID FUNDING LEVEL
AFRICA			
Cameroon	Agricultural Planning and Management Project	1979-89	\$13,000,000
Niger	Agricultural Sector Grant	1985-89	\$16,100,000
Zambia	Agricultural Training, Planning and Institutional Development	1980-86	\$9,785,000
ASIA/NEAR EAST			
Egypt	Agricultural Development Systems Projects (ADS)	1977-	\$14,600,000
	Data Collection & Analysis	1980-	\$3,000,000
Indonesia	Agricultural Planning Project	1984-87	\$500,000
Sri Lanka	National Agriculture Food & Nutrition Strategy	1982-86	\$500,000
LATIN AMERICA AND CARIBBEAN			
Dominican Republic	Agricultural Policy Analysis Project	1984-87	\$500,000
Peru	Agricultural Planning & Institutional Development Project	1983-87	\$16,000,000

Experience of the DCA and ADS projects is instructive in a number of respects. Although the two projects have significant achievements to their credit, in both cases the outcome of the policy analysis activities has generally fallen short of what AID hoped to achieve when it funded the projects. The policy-related components in general performed less effectively than the non-policy elements of the two projects (such as data collection in the case of DCA and horticulture production in the case of ADS).

Within the policy analysis component of each project, greater progress has been registered in developing host-country analytic capability than in accelerating agricultural reform, an experience common to many AID-funded agricultural policy projects.⁷ With few exceptions, the agricultural policy problems that existed when design of ADS began in 1976 still exist today.

Experience of these two projects provides four lessons regarding the design and implementation of a policy project, particularly where there is a perceived need to accelerate reform in the short term as well as strengthen analytic capacity for a long-term improvement in agricultural policies.

- Analysis can only be an effective tool to encourage and support reform where a basic government consensus on the need for reform already exists; otherwise the government will provide insufficient guidance and support for policy analysis and may actively obstruct it;
- By locating a project within a Ministry of Agriculture (MOA) unit which has formal responsibility for economic analysis, project designers increase the chance of lasting institutional impact, but this location tends to focus project activities on operational issues and to hamper involvement of personnel and institutional resources outside the MOA, including many that are more directly involved in policy-making than the staff of the unit in question;
- Creation of new institutions to coordinate policy review is only likely to be successful if there is a perceived need for greater coordination as the result of factors external to the project, such as donor pressure for dialogue, high-level concern within the host government regarding agricultural performance or policies, or a change in national leadership; and

⁷See, for example, John S. Tilney, Jr. and James T. Riordan "Agricultural Policy Analysis and Planning: A Summary of Two Recent Analyses," Agricultural Policy Analysis Project Staff Paper #1.

- Where government sensitivity to outside involvement in policy matters is high, donor-supported projects may be more effective if they limit their focus to long-term capacity development (data collection and management, training for analysts, etc.) than if donors attempt to use the project to achieve immediate policy change objectives as well, at least in the absence of other, more powerful incentives for reform, such as program assistance.

The experience of these two projects casts doubt on the feasibility of using an increased supply of analysis to drive the policy reform process. Although AID staff certainly did not expect analysis to transform agricultural policy in Egypt, they harbored the hope that analysis would facilitate and accelerate reform and, at the least, that some progress toward reform would be made.

6.2.2 Agricultural Planning and Institutional Development in Peru: Summary of Project and Findings⁸

The purpose of the Agricultural Planning and Institutional Development Project in Peru undertaken from 1983-1989 was to strengthen the Government of Peru's (GOP) capacity to formulate sound agricultural sector policies and effectively manage implementation of those policies. Project design took an integrated, holistic approach to policy formulation and management. As stated in the Project Paper, the agricultural sector's problems were pervasive and the capacity to analyze policy alternatives to alleviate this situation was extremely limited. Furthermore, the GOP was in transition from the public sector-oriented policy direction of the military government prior to 1980, to the more market oriented private sector approach of the Belaunde government. The need to reestablish agricultural data systems, train personnel, and reorient policy thinking was critical for the democratically formed government. Hence, a diverse set of some 13 project activities was designed for implementation, of which 11 were funded. For the 11 activities, USAID was to contribute \$11,000,000 loan funds and \$4,480,000 grant funds to the project from Food for Peace Program local currency generations, and the GOP was to contribute counterpart funds of \$8,500,000 for total project funding of \$23,980,000 beginning in August, 1983.

⁸Based on Jerrett, Marcia, "Agricultural Planning and Institutional Development in Peru," adapted from Schreiner, Dean F. and Jerry B. Martin, et. al., Evaluation of the Agricultural Policy and Institutional Development Project, APAP Technical Paper No. 503, Abt Associates Inc., Cambridge, MA, August, 1988.

The 11 project activities were: (1) creation of an Agricultural Policy Analysis Group (GAPA); (2) support to the Division of Economic Studies of the Ministry of Economy and Finance; (3) support to the Agriculture Sector Planning Office (OSPA) in monitoring and evaluation; (4) National Rural Household Survey; (5) continuous system of area and production statistics; (6) agroclimatic impact assessment; (7) improved management of the Ministry of Agriculture; (8) salary support; (9) strengthening management of the National Institute for Agricultural Research; (10) advanced training; and (11) support for the National Agrarian University.

The project was designed to operate for five years, through December 31, 1988, but in 1988, was extended for one year to allow for the continued operation of the advanced training component. The Ministry of Agriculture (MOA) was responsible for project implementation. Technical assistance was provided through two contracts and three Participating Agency Service Agreements.

As a whole, the APID Project was highly successful in generating policy and program, capacity building and interinstitutional impacts. Findings and lessons of this project primarily concern the provision of agricultural policy analysis support, in particular the institutionalization of such support. Highlights are summarized below.

- A strategy that encourages the institutionalization of the process of policy analysis is stronger than a strategy that calls for institutionalizing policy analysis in any particular public or private agency. Emphasis on the process builds a broader base of institutional and individual involvement in short- and long-term policy analysis and implementation, and hence has more stability, staying power, and breadth.
- Policy analysis studies provide information on alternative courses of action which purely political decisions on policy may often lack.
- Short-run policies will continue to receive high priority in a policy analysis unit because of critical short-run problems faced by the government. But long-term policies must also be considered. If it is difficult for a policy analysis unit to perform this function, because of the immediacy of current policy problems, then a mechanism for broadening its base for doing long-term policy analysis must be found.
- The role of an agricultural policy analysis unit should be seen as one entity within a system where dialogue leads to government policy making. Representatives of the public sector must carry on dialogue with research groups, private organizations, and most importantly, farmers and other members of society involved in agriculture and related activities.

- Because of the issues analyzed, some policy studies may not need to be published, and others, because of their brevity, may not justify a publication. Nevertheless, it is important for policy analysis staff to publish at least brief reports on its work to let others, besides the Minister and close aides, know of the quality of their work.

6.2.3 Formulating Agricultural Policy in a Complex Environment — Sri Lanka⁹

In Sri Lanka, numerous ministries, semi-autonomous agencies and development authorities are concerned with the agricultural sector. These institutions have narrowly defined areas of influence, making the analysis, formulation, and implementation of general policies and programs difficult. In this environment, agricultural ministries and related agencies are so engrossed in day-to-day problems of implementing their development programs that little or no attention is given to the impact of macroeconomic and sectoral policies. There is also little incentive to engage in policy analysis; rather, attention is focused on short-term problem solving and on identifying new projects that have an immediate pay-off.

In 1982, the Government of Sri Lanka (GSL), with the support of USAID and the Government of the Netherlands, decided on a comprehensive effort to address these problems. It initiated a long range policy analysis effort called the National Agricultural, Food and Nutrition Strategy (the Strategy), designed to produce consistent policies and programs to promote the growth of the agricultural sector. It was also designed to improve the government's capacity to deal with policy issues cutting across the agricultural sector, to promote interagency linkages, and to bolster interaction between decision-makers and analysts. The Strategy was successful in achieving many of these objectives and therefore represents a possible model to be followed in other countries with similar problems. Limited assistance in this exercise was provided initially by USAID and subsequently by the Netherlands. The total cost of the Strategy to the foreign donors was approximately \$700,000 (USAID--\$500,000; Government of the Netherlands--\$200,000). In addition, the GSL contributed to the project in the form of government officials' time preparing studies and reports, organizing and running meetings, and many other activities connected with the Strategy exercise. While this contribution was mainly in-kind and, therefore, difficult to estimate, it was at least \$100,000 over the two and one-half year period.

⁹Based on Jiron, Rolando J. and John Tilney, Formulating Agricultural Policy in a Complex Institutional Environment: The Case of Sri Lanka, APAP Staff Paper No. 2, Abt Associates Inc., Cambridge, MA, July 14, 1986.

Some of the major reasons for the relative success of this project are listed below.

- **This was a collaborative effort between the Government of Sri Lanka and the donor community.** The government was interested in rethinking its agricultural development strategy at the same time the donor community was looking for guidance on future programs and policy directions.
- **Aims of the Strategy were highly pragmatic.** From the outset, emphasis was placed on defining a development strategy consisting of implementable policy reforms and development objectives endorsed by all principal actors.
- **The right ministry was selected to direct the Strategy.** The ministry selected was effectively at a higher hierarchical level than other ministries, which gave it the authority to lead the process.
- **The GSL and the AID Mission made good choices about individuals to manage the Strategy.** The Project Director ran the GSL's major economic planning department and was a recognized figure in government, which meant that the Strategy would be taken seriously by senior decisionmakers in participating ministries. The Technical Director was also a senior official and worked full-time, providing continuity and direction.
- **Workshops and task forces were extremely useful vehicles for communication and interaction.** Analysts and decisionmakers rarely work together in the large complex institutions which oversee the agricultural sector. In the task forces and workshops set up as part of the Strategy, analysts and decisionmakers worked together to develop policy reform recommendations and action plans. The workshops also provided a forum for interchange between key decisionmakers in different ministries.
- **The Strategy was product oriented.** Each task force was required to produce a report outlining policy changes and programmatic reforms for their subsector. Once reports were finished, they were printed and distributed widely within and outside government.
- **A long-term advisor provided by the AID Mission was used effectively.** An important part of his effectiveness was that he worked with the Technical Director in the GSL. This allowed him to be considered a part of the process, rather than an outsider, and kept him focused on the Strategy itself.
- **The Project Director and Technical Director developed a realistic time frame for the Strategy and then adhered to it.** Milestones were clearly set forth at the beginning which helped to keep the project on track.

6.2.4 Zambia Agricultural Training, Planning and Institutional Development Project¹⁰

In the late 1970s and early 1980s, Zambia, a southern African nation, experienced severe economic difficulties. The prices for copper, its major export commodity, fluctuated dramatically but were generally in a downward trend. The country's major source of foreign exchange was rapidly being depleted. At the same time, political events, notably in Angola, Zaire and Zimbabwe, increased Zambia's defense expenditures and fueled inflation, which was increasing dramatically along with unemployment and underemployment.

The President and senior Government officials of the Republic of Zambia (GOZ) recognized the need for changes in government policies and resource allocation decisions. They also recognized the importance of the agricultural sector in rebuilding the economy. Agriculture had long been neglected because of the country's emphasis on copper. In order to make improvements in the agricultural sector, the donor analyses outlined a number of steps to be taken. These included major macroeconomic reforms as well as sectoral reforms, such as increases in producer prices to reflect international prices, increasing government resource allocation to the sector, and encouraging greater credit flows to agriculture by removing interest rate ceilings on loans to farmers, in addition to increasing the efficiency of agricultural parastatals.

These were major issues for the GOZ, which was ill-equipped to deal with them in the late 1970s. There were inadequate staff with advanced training in agricultural economics, economics or public administration, and there was a paucity of data on the agriculture sector. There was also general lack of coordination between institutions dealing with the sector.

USAID designed the Zambian Agricultural Training, Planning and Institutional Development Project (ZATPID) to address these constraints. The project was designed to provide advanced training to Zambian officials involved with the agriculture sector; to provide long- and short-term advisors to assist in data collection, analysis of complex policy and planning issues and to work collaboratively with Zambian officials; and to improve the institutional capabilities of the GOZ by improving various systems and procedures.

¹⁰Based on: Atherton, Joan, C. Reintzma, J. Tilney, and S. Block, Improving the Institutional Capability for Agricultural Policy Analysis in Zambia, APAP Staff Paper No. 8, Abt Associates Inc., Cambridge, MA, February, 1987.

The project was approved for an initial three-year interval with a possible two-year extension. A period of difficult relations between the U.S. and Zambian governments delayed the project's start for two years. The project finally began in the fall of 1982, and this evaluation took place in February 1986 (at the end of the first project phase). The project was implemented under a cooperative agreement between Iowa State University and USAID.

The major findings and lessons from this institution-building project are listed below.

- Overall, assisting the GRZ to strengthen indigenous policy formulation and planning processes was a sound use of AID resources, and a necessary complement to a substantial amount of non-project assistance, in order to ensure that the latter resources were well utilized.
- **Several studies undertaken as part of the project resulted in concrete policy changes.** Producer prices were increased on groundnuts and subsidies for renting tractors were reduced, for example. These policy changes were widely believed to have positive economic impacts. Although not all of the policy recommendations of other studies had been implemented, many, nonetheless, triggered a lively policy debate (especially a study on agricultural finance).
- Studies generated from outside political pressure or from the interests of senior government officials more often resulted in immediate impacts than those generated internally from the Planning Division. A mix of internally-generated analyses and responses to outside requests appears most appropriate. However, studies that are initiated within the Planning Division must be developed collaboratively with key policymakers and other decisionmakers in the country.
- The degree to which complex quantitative models are appropriate for policy formulation in Africa needs to be carefully considered. The modeling exercises under this project were disappointing due to poor assessment of the demand, end uses and sustainability.
- **Long-term training was a highly successful part of the project.** Nearly all of the candidates who went on long-term overseas training returned to responsible policy and planning positions in government. Part of this success resulted because all the trainees were required to have worked in government for a specified length of time at a job similar to the one to which they would return.

- **Additional institution-building activities were also successful.** These included the creation of a library and a computer center, presentation of workshops and seminars, and improvement of procedures, such as a consolidated crop forecasting survey. The latter activities were particularly important because they stressed the improvement of management skills of Zambian officials.

6.3 DESIGN LESSONS

The four cases just discussed provide valuable insight on what worked and what failed on these individual capacity-building projects. Review of additional cases as well as our broad review of over 100 such projects funded by USAID from 1970 to 1984 provide a number of generalizable lessons. In the next two sections we present these lessons, first for the design of projects and second for project implementation. Throughout these sections, examples from a broad range of projects are provided. In the following paragraphs, design lessons are presented. These pertain to: 1) the institutional location of assistance; 2) type of contractor; 3) size and length of project; and 4) training.

6.3.1 Institutional Location

The institutional location of technical assistance is a key consideration in designing policy and planning projects. If the project's primary objective is to improve an agency's institutional capacity to perform specific line functions (i.e., data collection and analysis), it is sensible to place the technical assistance directly in the unit responsible for those functions. Such units, however, are rarely involved in policy formation.

The question is much more complicated if the primary objectives are to improve capacity for policy analysis and to motivate short-term policy reform. Clearly, the closer a technical assistance unit is institutionally to senior decisionmakers, the more likely that unit is to influence policy. Yet, many developing countries experience repeated changes in governments; and, even in countries with stable governments, there is no guarantee that a particular minister will remain in office. In APAP experience, there were several examples of technical assistance units left unfunded and ignored as a result of political shifts.

The further the unit is from senior decisionmakers, the less likely it is to suffer from political change, yet it is also less likely to influence policies. The closer the unit is to senior decisionmakers, the greater the risk that project impacts will not be sustainable.

This potential tradeoff between building institutional capacity and affecting short-run policy reform is seen most clearly in Egypt. The DCA project had a lasting effect on the MOA's capacity to collect, manage, and interpret data in useful ways; however, it had little effect on analysts and decisionmakers elsewhere in the sector. In contrast, the ADS project had a greater impact on analysts from a wide range of institutions and a greater impact on decisionmakers; yet, it had virtually no impact on institutional capacity in the MOA.

The explanation for these diametrically opposed impacts lies largely in different strategies regarding institutional placement of the technical assistance. The ADS project operated as a special project unit outside the established ministry structure, though still within the MOA. This special status enabled the unit to mobilize a wide range of Egyptian analysts, many of whom later went on to senior policymaking positions in the GOE. However, the ADS project failed to establish an institutional home for continued collaborative research, none of which continued after the project's termination.

In contrast, the DCA project was concentrated within the established statistical unit, and focused its attention on data collection and management. Despite the likelihood of lasting improvements in the unit's capabilities in statistical analysis, the DCA project's institutional location severely limited its potential to address high-level policy issues, since decisionmakers traditionally did not look to that unit for policy advice.

It is also important to plan strategically in placing technical assistance when the bureaucratic environment for policy formation involves multiple agencies. The Ministry of Agriculture is not necessarily the most influential seat in complex institutional contexts. In Sri Lanka, for example, the Ministry of Finance and Planning was the most influential partner in coordinating a sector strategy requiring participation of many separate agencies.

Another consideration is that institutional location can be less important than the organizational influence of the manager of the unit in which assistance is housed, the analytical capability of the unit's staff, and the level of interaction with decisionmakers.

6.3.2 Type of Contractor

There is no clear lesson regarding type of contractor in the sense that one type is sure to bring success and another, sure disaster. However, it is possible to suggest general advantages and disadvantages associated with each type of contractor. The most common types of contractors are: 1) universities, 2) private firms, and 3) U.S. government agencies in participating agency service agreements (PASAs). The variety and

complexity of the project setting and experience make it difficult to attribute specific outcomes to the type of contractor employed. However, it is possible to suggest general advantages and disadvantages associated with each type of contractor which were visible among the projects reviewed.

University contractors are particularly well-suited to implement overseas training for host country nationals. A direct university-host country link, such as in the ZATPID project in Zambia with Iowa State University (summarized earlier), provided direct access and coordination between the project and overseas training. Overseas training can also be arranged at U.S. universities indirectly by a U.S. government agency, as was attempted in the Cameroon Agricultural Management Project (AMP) through USDA; yet, several problems associated with overseas training aspects of the AMP project (regarding placement of students and monitoring progress) can be traced to the indirect connection between the project/host agency and the training institutions. University contractors also offer the advantage of a large pool of in-house technical staff from which both long-term and short-term technical advisors can be drawn. Yet, university contractors in some of the case study projects (Zambia, in particular) had the disadvantage of weak management structures and limited experience in implementing large-scale overseas projects.

Private firms, in contrast, were strongest in their ability to manage projects efficiently, though private firms may be less appropriate than universities for implementing long-term training programs.

Management capabilities were also a weak point for the PASA arrangements in the projects reviewed. The PASA agreement in Cameroon led to long delays in project implementation owing to difficulties in filling staff positions and placing a team in the field. For certain specialized technical activities, however, such as census work, PASA contractors are indispensable.

6.3.3 Size and Length of Projects

Policy and planning institution-building projects tend to exist from four to ten years, longer than is typical for other types of USAID projects. Four years is probably the minimum period required for sustainable impacts on institutional capacity; and, significantly more than four years may be required for projects with long-term training components.

There does not appear to be a strong correlation between a project's effectiveness in building institutional capacity and its length, though this is a qualitative assessment based on a small sample size. The Sri Lanka project (one of the shortest) was found to have a significant impact on institutional capacity as well as on influencing decision-makers and policies. The two longest projects we reviewed -- in Cameroon and Egypt (ADS) -- were probably the least effective projects in terms of their institutional impacts. This is not to suggest that there is a negative correlation between length and effectiveness, but simply to suggest that it is not necessarily the case that the longer a project lasts, the more effective it is. The same analysis applies to project funding levels (which are strongly positively correlated with length of project).

The most important point is that if long-term training is a part of the design, the project must be long enough to allow for both the training itself and the reintegration of the trainees into their home agencies. Analysis of case study projects suggests that there is no correlation between a project's size or length and its effectiveness.

6.3.4 Training

A substantial training component is probably necessary for projects in which institutional capacity building is the primary objective although the question of whether or not to include training is largely a question of the project's objectives. Basic training options are: 1) long-term overseas training in a degree program at a U.S. university, 2) short-term overseas training, 3) short-term in-country training (e.g., workshops and seminars), and 4) day-to-day training through on-the-job counterpart relations. The projects examined here represent experience with each of these training structures, with varying results.

The case studies and written record indicate that short-term training activities can be an effective means of motivating host agency staff and of improving their capabilities in specific areas. There were, however, instances in which planned short-term training activities did not take place, apparently because advisors did not make such training a priority in their daily activities.

Four of the projects reviewed in detail (Cameroon, Zambia, Peru, and Indonesia) included long-term overseas training. This training had generally positive results vis-a-vis institutional capacity. Careful planning, however, is essential for selecting students. Training slots should be allocated to the most qualified candidates, rather than to the most influential. Candidate selection was also a problem in Indonesia, where inadequate English language skills undermined plans for U.S. training.

Another important lesson emerging from this experience is that it is not sufficient simply to train people. There must be a commitment in the host agency to make optimal use of those new skills and not to bury trainees under a mountain of bureaucratic responsibilities.

6.4 IMPLEMENTATION LESSONS

The APAP review of policy projects was rich in lessons applicable to implementing future agricultural policy and planning projects. These lessons pertain to general project management as well as to implementing institution-building, policy reform, and training activities.

6.4.1 Project Management

Several lessons for project management emerge from this analysis: 1) the Chief of Party (COP) must be empowered to make necessary decisions in the field, 2) the COP's terms of reference must be clear and accepted by all parties, and 3) there must be adequate administrative staff support to enable the COP to play a technical leadership role, rather than to be continually tending to administrative minutia. These problems were particularly acute in Cameroon and Zambia.

It is also important that projects be implemented in such a way that host country officials have significant responsibilities for project performance. This can encourage them to feel that they "own" the results, rather than to feel that an expatriate management structure has imposed results on them. This may also help increase host agency support for the project. This was a major factor contributing to the success of the Sri Lanka project, led entirely by GSL staff with the support of one long-term advisor. Historical experience suggests that the level of host country support will often determine the outcome of the project.

The extreme case is one in which local officials actively intervene to impede analysis that could discredit policies in which they have a vested interest. For example, in both of the Egyptian projects (ADS in particular), senior policymakers consistently directed analysis away from sensitive policy issues. This undermined both policy reform and efforts at strengthening local policy analysis capacity to support that reform. In such cases, project management can probably be most effective by directing project emphasis towards capacity building and away from policy reform.

That negative lesson is reinforced by the project reviewed in the Dominican Republic which established an independent policy analysis unit that was quite influential and successful during the time of a Secretary of Agriculture who turned to it for analysis, but which lost most of its influence and funding under a subsequent Secretary of Agriculture with different priorities.

6.4.2 Policy Analysis Activities

Effectiveness of policy reform-oriented technical assistance activities is particularly sensitive to implementation issues. Regarding the management of technical studies, it can take a long time for technical advisors to gain the necessary credibility with host agency staff. Thus, continuity in project staffing is essential to effectively implement a policy analysis activity. In directing technical work, local analysts require strong monitoring procedures to focus their work, a clearly defined research agenda is essential, and a strict timetable for products greatly increases the likelihood of their completion.

It is also essential that technical studies and methods used be comprehensible to the host country officials who are ultimately responsible for acting on the analyses and recommendations. In Zambia, for example, several complex quantitative models were constructed and applied. These activities were ineffective because local decisionmakers had little interest in, or understanding of such activities. The most effective studies in general were those requested by host country decisionmakers; the least effective studies were highly abstract and quantitative analyses developed independently by foreign advisors.

The role of short-term technical assistance also requires careful thought. Work performed by short-term technical advisors proved most effective when their activities were integrated into on-going project activities, and when advisors worked as closely as possible with host country analysts. It is also important that local analysts receive training in preparing scopes of work in situations where significant activities are performed by short-term outside advisors.

6.4.3 Data-Related Activities

Historical experience with implementing data-related activities also yields relevant lessons. One lesson is that data-related activities can support, but not trigger, analytical work. Data activities should grow from, and be directly tied to, requirements of specific analysis. Policy and planning units should generally not have direct responsibility for data-related activities. A final point with regard to these activities is that

consistency checks are essential, and should be built into all data-related activities. If errors are not found and corrected before data are presented in statistical reports, credibility of the entire activity can be undermined.

6.4.4 Training

The case studies and broad review of policy projects yield lessons for implementing training activities. Two projects with long-term overseas training components, Zambia and Cameroon, found it a successful aspect of their activities. An important reason for the success was the application of appropriate criteria in selecting candidates. Such criteria include: 1) a fixed period of service in the host agency prior to training, 2) work experience in a discipline that addresses relevant subjects, and 3) a minimum level of academic achievement prior to overseas training.

The greatest problems encountered in implementing overseas training activities occurred in cases where these or similar criteria were not adhered to. It is also essential that training programs are appropriate for the students' backgrounds and that the training is focused on relevant problems.

On-the-job training through daily counterpart relations often fell short of expectations. In Cameroon and Niger, the primary explanation was a lack of stability in counterpart relations; in Zambia, the problem was a lack of qualified Zambians to pair with expatriate counterparts. In addition to correcting these problems, successful on-the-job training requires that technical advisors make it a priority to impart technical skills and to include host country staff in their technical work. The Peru APID project was more successful in this regard.

6.5 CONCLUSIONS

In comparing the earlier historical record with a more recent group of project case studies, several general observations regarding the development of host country policy analysis capacity emerge. One finding is that the effectiveness of policy and planning projects has improved significantly over time. This is probably due to a combination of accumulated experience within USAID, as well as a growing awareness of the importance of policy among both donors and recipient governments.

Another general observation is that the effectiveness of policy projects has been enhanced by a greater sensitivity to the importance of institutional location in project design, and to the importance of requiring that studies undertaken through the projects relate directly to important current issues confronting decisionmakers. Moreover, several innovative approaches to improving inter-institutional coordination within complex bureaucracies have been successfully developed.

Despite these improvements, however, the challenge remains for USAID and other donors to develop an institutional process for policy analysis that is both sustainable and closely integrated into host country decisionmaking.

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