

AGRICULTURAL POLICY ANALYSIS PROJECT

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

APAP STAFF PAPER NO. 24

AUGUST, 1988

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ABSTRACT

The policy inventory is a tool developed by the APAP to aid decision-makers as the first step in the process of identifying key macroeconomic and sectoral policies and assessing their impacts on the agricultural sector. The inventory consists of a structured list of major policies affecting the agricultural sector and a preliminary assessment of their impact on relevant agricultural performance indicators. In addition, the inventory identifies government agencies responsible for agricultural policy implementation and specifies policy alternatives. It can also be extended to inventory and appraise the impact of a limited number of subsector policies. This Paper: (1) summarizes the policy inventory approach, (2) provides brief guidelines for conducting a policy inventory, and (3) summarizes APAP experience in conducting policy inventories in El Salvador, Guatemala, Senegal, and Zaire.

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

1.0 INTRODUCTION

The past five years have witnessed rapid growth in the amount of attention devoted to agricultural policy problems in developing countries and in donor assistance aimed at removing policy barriers to greater and more equitable agricultural growth. At the same time, increasing constraints on both host and donor country resources do not permit a proportional increase in resources devoted to identifying and analyzing policy problems and alternative solutions.

To address this problem, AID's Agricultural Policy Analysis Project (APAP) developed a technique for rapidly appraising the policy environment affecting agriculture (Bremmer, 1987). This technique, called **policy inventory**, was first tested as part of an APAP review of agricultural policy problems in El Salvador in 1984 (Nathan Associates, 1984). It has subsequently been used to explore policy problems in countries as diverse as Guatemala, Senegal, Indonesia, and Zaire and has been adapted to look at the impact of policies on small rural enterprises and to examine the impact of existing policies on women in the agricultural sector.

The policy inventory is one of the first rapid appraisal techniques developed to address policy analysts' and policy-makers' information needs in the policy dialogue. Although it focuses on policies rather than projects, it shares many characteristics of other rapid appraisal methods:

1. It provides a **broad overview of development issues** in a particular area, in this case, policies affecting the agricultural sector.
2. The method relies on **secondary data** and information provided by key informants.
3. Information collected is presented in a **concise and highly synthesized** manner, facilitating use by decision-makers and planners.
4. The method is suitable for **combining with more in-depth analysis of specific issues**, and can often be an important step in clarifying which issues should have **priority for limited analytic resources**.
5. The product quality is heavily dependent on the **experience and qualifications** of the individuals conducting the analysis, as the technique serves primarily to organize and systematize relevant information so that professional judgment can be made about the nature and severity of the problem, as well as possible solutions.

The policy inventory is a simple and useful tool for assisting donors and host governments in determining priorities for analysis and possible policy reform, and for identifying key interactions and contradictions between existing policies affecting agriculture. Used in conjunction with additional analysis, the policy inventory is a valuable addition to the tools available for supporting dialogue on agricultural policy reform.

1.i Why Conduct a Policy Inventory

The frequently disappointing results obtained from donor-funded production, people, or infrastructure-oriented projects and government investment programs alike focus attention on policies as determinants of development. Development projects cannot ensure growth in agricultural production and incomes in the absence of conducive sector policies implemented in a complementary relationship with macroeconomic policies and international trade developments. Even the success of investments in agricultural infrastructure and supporting systems such as research and extension, can be easily undermined by policies such as mandatory delivery quotas and low crop prices or, by unfavorable currency valuations and restrictive trade policies.

Developing and donor country decision-makers need information permitting them to determine 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:

1. Do current national policies promote or hinder agricultural development?
2. 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?
3. 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 information in support of planning and programming for policy reform in the agricultural sector. An examination of existing policies impacting agriculture, with respect to how they affect agricultural production, distribution and government budget can be useful 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 technique can generate information to serve these diverse purposes rapidly and with very modest analytic resources.

1.2 Setting The Policy Dialogue Agenda

The United States has continually aided developing countries in their quest for economic growth and development. During the mid-1980s, as many countries began to correct excesses of centralized planning and to deal with depressed world commodity markets, over-valued currencies and burdening debt, the U.S. used food aid and other direct assistance as a means to promote agricultural policy reform. This permitted the USAID an opportunity to encourage policy reform and to participate in national "policy dialogues" to foster agricultural development, food security, and general economic growth. The policy inventory 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, and serving as a basis for informed mission and host country policy dialogue.

Growth enhancing adjustment policies often include currency devaluations, relatively high interest rates, relatively low wage rates, and higher food prices. For a government, such changes entail significant financial and political costs. For the poor, the short term consequences of these policies can be severe. Therefore, for meaningful dialogue on policy reform, all parties should be informed of the consequences of policy reforms and the need and opportunities for compensatory action. The policy inventory, by identifying policies that adversely affect agriculture, and estimating, at least in an ordinal measure, how these policies impact on production, income, trade, government

revenue, etc., paints, a general, "broad brush," picture of the need and opportunities for reform. The government and donor agencies can then begin a more rational dialogue on ways development assistance can facilitate economic reform programs by enabling government to select reasonable reform policies and to dampen adjustment pains with compensatory adjustments.

2.0 THE POLICY INVENTORY TECHNIQUE

The purpose of this chapter is to describe the policy inventory technique and to present guidelines for planning and implementing a policy inventory. A general overview of the technique is followed by a description of the main inventory components. Discussion then moves to the uses of the inventory and concludes with guidelines on planning and implementing a policy inventory. This summary "users' guide" is directed at decision-makers, managers, analysts, donor personnel, and others whose information needs may be met, in part, by a policy inventory.

2.1 Elements of a Policy Inventory

A policy inventory consists of four basic elements, although these are generally supplemented with additional analysis and follow-up activities to suit the particular situation at hand:

- A **summary description** of the 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 the 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.).
- 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 the amount of information available, time available for the inventory, and the analytic resources that can be devoted to it. In El Salvador, for example, assessment of policy impacts was based primarily on the professional judgement of the 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 may be preferable to base this assessment on more rigorous quantitative analysis. Simple modeling exercises may be useful, e.g., to determine how current prices affect the cropping pattern or farmer income. The use of such analytical capability however, goes beyond what is normally referred to as a policy inventory.

2.2 Inventory Format

Experience underscores the importance of presenting inventory findings in a concise form that is well-organized and readily understandable by decision-makers. A simple format permitting the key policies affecting the agricultural sector to be presented in a few pages is illustrated in Appendix I.

This format:

- Groups policies into **macroeconomic, sectoral, and subsectoral** policies, where the subsector must be identified, e.g., food crops or natural resources;
- Identifies the **agency responsible** for implementing each policy;
- Provides estimates of the **main impacts of each policy** on selected variables of concern to policy-makers. These may include production, consumption, imports, exports, and government revenues;
- **Assesses the importance** of each policy by ranking its impact on a scale or merely as positive, negative, or unknown, depending on the analyst's choice; and
- Lists the **main alternatives to each policy** as an aid to discussion and further analysis.

Presenting the inventory findings in this format is an effective means to increase decision-makers' awareness of policy impacts, interactions between different levels of the economy or sector, and the importance of nonagricultural policies, such as the exchange rate, to agricultural development. Even where quantitative techniques, are available that generate very precise estimates of impacts, such as an econometric model, transforming such quantitative estimates into the above, less precise, form facilitates their use in the policy dialogue and is more in keeping with the inadequacies of relevant data in many developing countries.

2.3 Supplementary Activities

Depending on the specific situation, the organization sponsoring the inventory may choose to supplement the policy inventory itself with one or more of the following:

- Analysis of major issues, where alternative reforms or priority questions for analysis have already been identified;
- Recommendations for further analysis or for specific reforms, where sufficient information exists to make such a recommendation;
- A policy workshop, with senior government decision makers responsible for areas having major impacts on agricultural development participating.

In El Salvador, for example, the issue of PL-480 rice import levels was identified as a major policy question by the government, and analysis of this issue was included in the initial inventory program. This approach permitted AID to meet its immediate information needs for decisions upcoming in the short term, and to identify priorities for a broader program of analysis and continuing policy dialogue.

To be fully effective, the policy inventory must be followed-up with analysis and other assistance to encourage the government to move quickly on policies identified as major barriers to sectoral development. The policy workshop can be a very effective tool in promoting this necessary follow-up. Longer-term follow-up actions include periodic review and revisions to incorporate the inventory policy changes made over time and review sessions with government decision-makers to increase their awareness of policy inventory findings. In this respect, it is very important that host country counterpart analysts fully participate in conducting the policy inventory so that they can conduct necessary future updates of the information and analysis.

Carefully designed and implemented, the policy inventory can become a useful tool for monitoring policy developments. It can be used to monitor and evaluate progress in implementing a reform program and to verify that the planned reform program is not being undermined by policy changes in other areas. For example, increases in the domestic price of an export crop may not make production of the crop more attractive to small farmers than food grain production in the face of even larger increases in the price of domestic food grains.

2.4 Implementing a Policy Inventory

A typical policy inventory involves the following six-steps:

1. **Planning**, including staffing and funding requirements;
2. **Preparing**, including gathering and reviewing information available in-country;
3. **Inventorying** existing policies;
4. **Assessing** policy impacts;
5. **Analyzing** policy alternatives; and,
6. **Following up** to discuss inventory findings with national policy-makers.

Although an inventory can be conducted by AID and developing country government staff without outside assistance if qualified staff are available, it is usually preferable to mobilize additional expertise to ensure that the inventory is carried out rapidly and thoroughly. Direct participation of AID and government personnel in the exercise is nonetheless highly desirable to represent decision-makers' interests, to ensure that in-country personnel are fully familiar with the findings, and to pave the way for independent follow-up dialogue and analysis.

A most important requirement in planning the inventory is to determine the mix and level of expertise fielded for the exercise. At a minimum, the team must include individuals with extensive knowledge of the country, skill in macroeconomic analysis (including trade and fiscal issues), familiarity with agricultural development, and analytic capability in agricultural economics.

The inventory plan (and terms of reference for any outside personnel involved) should clearly reflect the policy inventory scope. The scope is determined primarily by two factors: 1) the client's purpose in commissioning the study; and 2) the relative importance of a particular policy or a set of policies in influencing the agricultural sector or a special interest group (e.g., women) within the sector. The client may be interested in a review of the entire set of major agricultural policies with a view to establishing priorities for comprehensive sector reform. More likely, the client will want to focus on particular aspects of policy such as, for example, the impact of recent trade liberalization, or the role of pricing policies in constraining or promoting crop diversification.

Even when the objective is to review the entire policy set, the relative importance of policies should influence the scope of the inventory. Thus, for example, it is possible that agricultural development in a particular country is significantly constrained by the state's monopoly control over food purchase and distribution; e.g., the state determines the level of producer and consumer prices, controls transportation, storage, etc. In this case, it may be appropriate for the inventory to be weighted toward the set of policies that dominate the sector, i.e., state trading in food commodities.

In planning a policy inventory, it is necessary to give careful consideration to the government's relative concerns over policies and to other developments in the sector. Understanding the environment in which the inventory will be implemented will permit inventory sponsors to position it so that it provides as much support as possible to ongoing dialogue, planning, and reform oriented policy decision making.

No matter what the purpose of the policy inventory or the relative significance of particular policies in restricting or facilitating agricultural development, it is useful to initially briefly review all policies affecting agriculture at the macro, sectoral, and subsectoral levels. This is necessary both to provide a context for the analysis and also because evaluation of policy impacts is more thorough and complete if intersectoral linkages are considered. For more detail on each step in the policy inventory, see Appendix I.

3.0 IMPLICATIONS OF A POLICY INVENTORY FOR DONOR ASSISTANCE PROGRAMMING AND POLICY DIALOGUE

This section examines the implication of a policy inventory for donor assistance strategies, data collection and analysis, and for agriculture sector projects.

3.1 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:

1. Are existing policies a serious constraint to growth in production and incomes in the rural sector?
2. Which policies or policy mix should receive priority for future analysis, dialogue, and reform?

Answers to the two above questions can be used to 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:

1. Based on the importance of policy as a constraint to development, should policy reform be given a central or major role in the donor assistance strategy?
2. Which areas should be emphasized in short term analysis of the impact of existing policies and possible alternatives?
3. 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?
4. Are existing policies likely to have a major distorting or inhibiting effect on the donor's current assistance program goals for agriculture?
5. Is there a serious need to improve in-country analytic capabilities and which institutions and problem areas deserve priority if such an effort were undertaken?
6. 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 into the donor's assistance strategy. A host of factors underpin the choice of areas emphasized by a given donor agency in a particular country and no donor can address all problem areas simultaneously. Programming to promote 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, the findings of the policy inventory may have an impact on the donor's strategy in two ways. First, the inventory can identify critical weaknesses in the in-country ability to identify and act on policy problems. For a number of reasons (discussed later), 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 by governments. 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.

3.2 Implications for Data Collection and Analysis

The policy inventory generally includes a brief overview of the technical and economic forces at work in the agricultural sector. This overview is required as part of the inventory, given the inventory's reliance on secondary sources to identify policies and estimate their impacts on the agricultural sector. The overview may also prove to be a valuable tool for identifying data and information gaps that should be given priority for future data collection and analysis activities. While the inventory itself is not an appropriate vehicle for such data collection, given its rapid appraisal nature, those conducting the inventory may be able to incorporate specific guidance on future data collection and analysis.

The inventory itself can also be used as a monitoring tool to track changes in policies affecting the agricultural sector, particularly if the inventory is set up using a spreadsheet format that facilitates updating and correction as policies evolve. As such, the inventory can form the basis for a database on agricultural policies. Naturally, this strategy is only effective if resources are available to update the inventory on a regular basis.

The policy inventory was initially developed as a first step in analyzing the impact of macroeconomic policies on the agricultural sector. It was rapidly extended to cover impacts of agricultural sector policies and it has subsequently been used to explore the impact of policies on small rural enterprises and to examine the impact of existing policies on women in the agricultural sector. These latter applications indicate the potential of the policy inventory technique as a tool for conceptualizing linkages between sectoral and sub-sectoral policy issues and the technical, economic and social context in which such policies operate. If the original macroeconomic information is maintained and updated as new issue areas are added, the inventory becomes an increasingly useful policy analysis information system with value far beyond the particular application of the

moment, especially if important causal relationships are documented and important linkages between newly added dimensions and all previously included sectors and sub-sectors are documented. Such developments however imply that (1) the hard copy or two-dimension tabular format will rapidly become too limited as an information storage medium; (2) microcomputer database management systems offer a high potential information processing, storage and retrieval capability and (3) the tabular format then will become an output or report writer capability, with information sub-sets produced in any number of possible tabular forms dependent on the analytical needs.

Further, although early applications of the policy inventory usually included a brief overview of the technical and economic forces at work in the sector and subsectors covered in the inventory, more such coverage will be needed if the policy inventory is to achieve its potential in policy analysis. For example, this type of information will be very useful in the next five year APAP phase relating to the impact of economic or structural adjustment programs on the agricultural sector which in turn impact on the use and sustainability of the natural resource base. Already completed inventories which started with the linkages of macroeconomic policies to the agricultural sector, if updated, can provide a very useful information base covering the many sector and sub-sector technical, economic and policy linkages to be explored in the second phase of APAP.

3.3 Implications for Agricultural Sector Projects

Although the policy inventory is not intended as a tool for project design, its findings are likely to have significant implications for the design of both policy and non-policy projects. By "policy projects" we mean projects that are intended to have a direct impact on the development of in-country policy analysis and monitoring capability, on the reform of existing policies affecting agriculture, or both. The term includes projects where these activities are a major component, as well as those where policy and policy institutions are the major focus.

The policy inventory has clear implications for designing policy projects. Indeed, the inventory itself may be a useful adjunct to the project design effort for such projects, in order to identify appropriate analytical objectives for the project. The inventory can also generate information 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 policy 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:

1. Distortions that make project-supported activities **artificially unattractive**: e.g., pricing policies that reduce the profitability of crop and livestock products, the production of which is to be promoted by the project; trade policies that reduce the profitability of export crops; etc.
2. 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); inappropriate subsidies on credit or inputs; etc.

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 boost 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.

4.0 APAP EXPERIENCE WITH POLICY INVENTORIES

As indicated in the Introduction, the policy inventory was developed by APAP as a rapid appraisal type of technique for collecting, organizing and subjectively analyzing information relative to a government's policy interventions impacting agriculture. The policy inventory technique was first tested in a review of agricultural policy problems in El Salvador in 1984 (Nathan Associates, 1984). It was subsequently adapted for exploring policy problems in countries as diverse as Guatemala, Senegal, and Zaire. It has also been used to explore the impact of policies on small rural enterprises and to examine the impact of policies on women in agriculture. See APAP Staff Paper No. 22 for a report on the latter application (Nathan Associates, In Process).

4.1 El Salvador

In response to a request from USAID/El Salvador and the Government of El Salvador (GOES), a five-person APAP team spent several months in the field preparing an inventory and analysis of policies affecting agriculture in El Salvador (Nathan Associates, 1984). Political and economic disarray in that country were having a negative impact on the agricultural sector, which dominates the Salvadoran economy. Thus, a comprehensive examination of the factors affecting agriculture was a necessary starting point for efforts to reverse negative trends in agricultural growth.

The objective was to generate policy alternatives relating to the marketing of basic grains, fruits and vegetables, traditional export crops (coffee, cotton, sugar), and livestock products. In particular, the study sought to: (1) review the supply and demand characteristics of the subsector; (2) describe and evaluate the subsector marketing structure; (3) evaluate the economic and technical efficiency of the system; (4) examine marketing support functions; (5) analyze relevant marketing constraints; (6) determine foreign trade impacts; and, (7) weigh alternative marketing policies.

The purpose of evaluating marketing policy alternatives was to assist the GOES in achieving its broad food policy objectives and to improve the efficiency, effectiveness, and equity of the agricultural marketing system. The scope of the analysis included: allocation and pricing of production inputs, production incentives and controls, commodity procurement, storage, transportation, processing, and trade policies. The APAP team also examined relevant marketing policy constraints, including the provision and maintenance of physical infrastructure, private sector investment incentives, availability and price of investment and working capital, allocation and provision of materials used in marketing services, market control by the public and private sector, cost and availability of improved marketing technologies, and dissemination of market information.

The inventory results indicated that the existing policy structure in El Salvador remained tied to previous economic conditions and development philosophy: reliance on traditional exports, foreign borrowing, and capital intensive, urban centered industrialization which inadequately utilized domestic resources and markets, and distorted the internal terms of trade against agriculture. The policy inventory systematically illustrates the inappropriateness of then existing economic policies for diverse and productive agricultural sector growth, and recommends a course of action more favorable to agricultural growth.

Although the presentation of inventory results vary from application to application, the El Salvador format provides a basic, efficient format that can be modified to fit individual country and policy inquiry situations. The El Salvador example is illustrated in Appendix II. Results are displayed in ten tables - covering macroeconomic policies, five sectoral policies, and one subsectoral policy. Macroeconomic policies are divided into fiscal, monetary, regulatory, or external trade while sectoral policies are divided into resource and technology policies. Each table lists the policy interventions and their impact areas, their intended purpose, the institutions formulating or implementing their policies and a qualitative assessment of their impact on selected performance indicators. Further, the policies and their assessments are described and qualified in more detail, and principal alternative policies are suggested.

4.2 Guatemala

At the request of the Ministry of Agriculture and USAID/Guatemala, APAP conducted an inventory of policies and their impacts on agriculture over the period of 1970 - 1985. The analysis includes a review of secondary information dealing with the macroeconomic setting in Guatemala (i.e., exchange, credit, fiscal and trade policies) and an analysis of the current set of policies affecting the agriculture sector. The analysis includes the following:

1. Current policy interventions affecting the pricing and marketing of agricultural inputs and outputs;
2. The degree to which the current policy set is favorable or unfavorable to growth and development in the agricultural sector;
3. Procedures and institutions that set agricultural policy and the role of analysis in this process;
4. USAID mission action needed to improve agricultural policy, including policy dialogue and supporting analysis, programming of funds to support specific policy changes, and project-related support of data collection and analysis;
6. Prices for important agricultural products.

As part of the study, a qualitative policy simulation was developed. The exercise consisted of ascertaining the perspectives of several institutions with regard to the impact of the identified policies on a set of variables important to the agricultural sector. Comparing points of view among the key institutions indicated the degree of agreement and disagreement concerning areas of interest, priorities and policy reform among the decision-makers.

The inventory concluded that two differing sets of policies - one set developed in a period of economic growth, and one set developed later in a period of decline - both served to under-invest and under-develop Guatemalan agriculture, a sector in which, ironically, all previous national growth was based. These policies served to the disadvantage of the agricultural sector, and eventually impeded the very national economic growth the policy-makers had hoped to stimulate.

The inventory assessed Guatemala's monetary and fiscal policies, like the central bank's open market and discount operations, national credit and exchange policies. The study concluded with a dialogue among chief officials of Guatemalan economic agencies, many of whom had not realized the extensive and unexpected impacts these policies had on agricultural growth.

4.3 Senegal

Abt Associates undertook an APAP analysis of the complex agricultural policy issues confronting the Government of Senegal (GOS) in 1984. This was the largest policy inventory conducted by APAP (Abt Associates, 1984). The assessment was carried out jointly with the GOS under the aegis of an interministerial committee over a period of six months, and was organized so that the information, conclusions, and recommendations could be integrated into the on-going policy reform processes of the GOS, working with the World Bank and a multinational donor committee. The study supported on-going policy dialogue between the USAID mission and the GOS serving as a foundation for future program planning.

Senegal faces a major structural deficit in domestic food grains. Increasing population, government incentives which favor cash crops such as peanuts and cotton, and somewhat accelerated market conditions have caused a persistent disequilibrium between food crops and export crops. Peanuts, peanut products and cotton are major agricultural exports while cereals are Senegal's major imports. The assessment analyzed the performance of Senegal's agricultural production system, links between the agricultural system and the rest of the economy; soil, hydraulic, technical, and institutional constraints on productivity increases; and a general set of incentives aimed at agricultural production and structural change. The assessment focused on the cropping mix, pricing, research, input supply, and marketing policies and ultimately developed policy recommendations involving the GOS credit and subsidy outlays and examined issues relating to restructure of the institutions involved.

The inventory concluded that three main factors - chronic drought conditions, unfavorable changes in the international economic environment, and inappropriate government policies - adversely affected agriculture.

Since the GOS could have little influence on the drought or international economic conditions, the inventory recommended needed changes in the government policies. These included the restructuring of several major parastatals and the adoption of new price policies encouraging an efficient crop-mix. The traditional policy context of Senegalese agriculture carries with it price policies which impede changes in crop-mix. Unavailability of improved seed and the general collapse of the fertilizer supply system were all primary non-price impediments to altering the crop-mix and increasing production intensity.

Another conclusion of the policy inventory was that more analysis is needed to determine which direction agriculture should move to meet the growing food need - a land extensive approach or more manufactured input-intensive methods of agricultural production. Recommended alternatives included institutional reform of the rural development agencies, pricing and regulatory reform, increased private sector distribution of agricultural inputs and marketing, and credit reform.

4.4 Zaire

This policy inventory conducted by APAP for USAID/Kinshasa in 1986-87 served a dual purpose. First, it drew together the various Government of Zaire (GOZ) policies that directly and indirectly condition agricultural development in Zaire; and second, it drew upon that overview of agricultural policies to suggest priorities for policy analysis to be pursued under USAID/Kinshasa's Agricultural Policy and Planning Project (Block, et. al., 1987).

The GOZ has placed top priority in agricultural development, but has been unable to lead Zaire to greater productivity and food security. Over 20 governmental agencies make policies affecting agriculture in Zaire, less than half of which make policy decisions specifically with agriculture in mind. Zaire lacks a coherent agricultural policy and program to promote agricultural development. This is reflected in contradictions in policies and programs and in the numerous public agencies having actual or potentially conflicting jurisdictions over agricultural programs, such as a price liberalization system together with burdensome taxes on agricultural products.

The inventory of Zairian agricultural policies isolated specific topics for investigation by the Service d'Etudes et Planification, including: the impact of price liberalization on crop production and marketing in Banoundu; input supply and marketing; lending and savings mobilization; and the impacts of trade and commercial policy.

Based on a review of available documentation and interviews with various officials, the study identified the following policy issues and constraints to improving Zairian agriculture:

1. Lack of coherent agricultural policy reflected in inconsistency and contradiction of programs and jurisdictions of implementing agencies;
2. A price liberalization policy that did not have the desired impact on agriculture production and marketing;
3. High marketing costs for both inputs and products;
4. Inadequate financing for agricultural development; and
5. Trade and tariff policies having important implications for Zaire's domestic agricultural economy.

The study laid out detailed scopes of work for seven projects to address these issues in detail. The recommended policy studies will contribute to the capacity of Service d'Etudes et Planification (SRP) to evaluate policy alternatives relating to the agricultural sector.

5.0 SUMMARY AND RECOMMENDATIONS

National agricultural decision-makers in developing countries face many challenges due to population increases and increased income resulting in greater need for food and other agricultural products. At the same time, poor policies and other crisis in the past decade have often stymied agricultural growth and made policy adjustment more crucial. The USAID has achieved limited success in using food and other direct assistance as a vehicle for encouraging, and participating in national dialogues for improving food and agricultural policies in developing countries. The USAID sponsored Agricultural Policy Analysis Project (APAP) has gained useful experience over the last five years in providing information for decision-making, developing indigenous capacity of host countries for policy analyses and in preparing agendas for policy reform. 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, conducted in several countries, has proven a useful tool in providing an improved basis for understanding and prioritizing policy considerations and in suggesting areas for data collection and more in-depth research and analysis.

The policy inventory is a rapid appraisal technique providing a broad overview of policy issues affecting agriculture that need to be addressed. It 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 and serve as a basis for dialogue and further data collection and analysis.

The scope of an inventory can be expanded or limited on the basis of the amount of information available, available time, and the analytic capabilities that can be devoted to it. The flexibility of the policy inventory allows the analyst to modify the range of the inventory from a rather broad overview to a very specific analysis. For example, under the next five year phase of APAP, policy inventories will place greater emphasis on the impacts of structural adjustment and economic policies on natural resource management and will provide even stronger linkages to the planned emphasis on the dynamics of policy decision making in agriculture. The policy inventory should prove a useful tool in outlining the broad perspective with respect to interactions between these important issues.

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 which policies should receive priority for reform. It also examines the state of information on policies and policy impacts, thereby identifying needs for further data collection and analysis. The policy inventory can also throw light on the design of policy and non-policy projects.

Because the policy inventory is viewed as a quick response exercise, 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 having extensive agricultural development experience, including knowledge of the socioeco-

conomic and political dynamics of agricultural policy making in the concerned country. It may be preferable, therefore, to base impact assessment on more rigorous analysis with quantitative data whenever resources permit.

REFERENCES

- Abt Associates, Inc. Draft Final/USAID Review, Senegal Agricultural Policy Analysis, September, 1984.
- Block, Steven, Bechir Rassas and Charles E. Hanrahan. "Overview of Zairian Agricultural Policy Issues and Recommendations for Policy Research Agenda." APAP Technical Document No. 405, March, 1987.
- Bremer, Jennifer. "The Policy Inventory: A Tool for Diagnosing Priorities for Analysis and Reform of Agricultural Sector Policies," APAP Staff Paper No. 10, May, 1987.
- Jiron, Rolando and Otto Samayoa. U Inventario Y Analisis De Political Economical Y See Relacion En La Agricultural En Guatemala. Octubre, 1986.
- Li, Elton, and Arthur Stoecker. "Economic Gains and Losses from Government Intervention in a Commodity Sector," APAP Library of Microcomputer Tools for Supporting Policy Analysis No. 2, 1988. (In process.)
- Nathan Associates, Robert R., Inc. "An Inventory of Policies Affecting Agriculture in El Salvadore," APAP Technical Document No. 118, August, 1984.
- Nathan Associates, Robert R., Inc. "An Inventory of Policies Impacting on Women in Development," APAP Staff Paper No. 22. (In process.)

APPENDIX I

IMPLEMENTING A POLICY INVENTORY

APPENDIX I

IMPLEMENTING A POLICY INVENTORY

Determining Areas of Interest Included in the Inventory

Areas of interest will be determined in part by the scope of the inventory. In a general inventory, the minimal areas of interest would be at the macro and sectoral levels. That is, national macroeconomic policies would be inventoried and their impacts on aggregate agricultural sector performance variables such as output and income would be estimated. A more specialized inventory requires identification of impact areas at the subsectoral level as well.

A tentative guide for determining the particular impact areas of interest at each of these levels is as follows:

1. At the macro level, the two most important impact areas are government revenues and the trade balance. Other potentially important areas, depending on the focus of the inventory, are consumption, and overall employment (for example, through value added activities).
2. At the sectoral level, the impact of macroeconomic and sectoral policies on agricultural production are of foremost concern followed by performance indicators such as rural/ agricultural incomes and agricultural sector employment.
3. At the subsectoral level, impact areas are best defined by the focus of the inventory. Impact areas at this level are relatively less important for a general inventory, and more or less important for a specialized inventory depending on its focus. For example, if export crop development is of concern, the impact areas of interest at the subsectoral level would be output (production of export crop), and production of alternative (substitute crops). Impact of export promotion policies on food crop production is another area of interest, especially if there is concern that such policies induce a shift away from food crops and reduce their availability. Impacts on value-adding industries such as processing, and transport are also potential candidates for evaluation.

Definition of a Policy Intervention

Most countries intervene in the agricultural sector ostensibly to improve efficiency and promote growth. Interventions relating to government investments in research and training and infrastructural development are not generally scrutinized or of great interest to the policy analyst. They are widely acknowledged as necessary to the

development process and are not particularly distortive. Policies that usually attract analytic attention are those attempting to intervene directly in the functioning of agricultural markets, for example, those that mandate ceiling or floor prices for agricultural commodities.

Within the neoclassical economic theory framework, government intervention in agricultural markets is considered appropriate only if it occurs to correct market distortions or to prevent market failure. This assumes that markets work most efficiently without government intervention. In fact, governments intervene in agricultural markets in developed and developing countries alike for a range of reasons, not all of which promote growth or reduce distortions. Government interventions may be motivated by non-economic factors such as equity or the promotion of other social or political goals. More will be said about these objectives in a later section. At this point, it is sufficient to state that government intervention in agriculture is widespread.

Agricultural policies provoke analytic attention mainly because they alter the incentive structure. As they prevent markets from operating freely, they generally reduce efficiency and promote resource misallocation relative to the theoretical norm. A policy intervention may be defined as any government action that changes incentives in agricultural input or output markets and thereby affects the functioning of those markets.

Direct interventions in agricultural markets generally occur at the sector or subsector levels. They may be summarized as:

1. Government trading in agricultural inputs and commodities;
2. Taxes and subsidies on agricultural inputs and products;
3. market regulation, including price controls, licensing, quotas; etc.

Despite the fact that policy interventions create distortions and entail costs, governments are willing to intervene in agricultural markets in order to achieve certain objectives. Moreover, while they are generally willing to incur the cost of interventions in the short run, such costs often become prohibitive over the long run. Some policy choices result in an acceptable tradeoff. For example, imposing a tariff, while restricting trade, also brings revenues into government treasuries. Even when a policy does not offer a clearly discernible tradeoff, the government may be willing to pay the costs of the policy in favor of special interest groups or due to other political dynamics.

Even when governments are willing to undertake reform, it is important to remember that no matter what the economic wisdom on the issue, due to non-economic motivations, policy-makers are unlikely to entirely forego intervention. However, in a climate of reform, governments may be willing to liberalize some policies and to modify others in order to shift the distribution of costs and benefits. So the task of the policy analyst is to provide the best possible economic analysis and information on which policy-makers can base their reform decisions. Even if non-economic considerations govern decision-making, as they often do, policy-makers will be more aware of the economic impacts and tradeoffs involved through the inventory analysis. However, it should be noted that in a rapid appraisal such as a policy inventory, the depth of the analysis depends critically upon data, time, resource availability, and the quality of secondary information and analysis.

Identifying Interventions

A policy intervention may be identified in a number of ways, the simplest being through the price of a commodity. This is a powerful tool, as policy-induced distortions tend to raise (lower) prices and will be reflected in producer and consumer decisions and actions. Once this is known, the issue becomes one of finding a basis for price comparison in order to determine what would be the undistorted commodity price. Three comparative or "shadow" price mechanisms exist for this purpose: the border or world price of the commodity, the consumer price, and the cost of production.

Assuming that world prices are freely determined and represent production based on comparative advantage, comparing the internal price of the commodity with the border price reveals the magnitude of the distortion created by domestic policies. If prices are much higher (lower) than world prices, there is a likelihood that consumers are being taxed (subsidized). In the second case, if farm prices are much higher (lower) than consumer prices, farmers are being subsidized (taxed) and there will be a tendency for overproduction (shortages). In the third case, theoretically, if markets are perfectly competitive, in the long run, price will equal the cost of production. Once again, the magnitude of the distortion will be reflected in the divergence between the price and the cost of production, allowing for marketing and handling margins.

The next step is to determine factors contributing to the distortions. One or several policies may be responsible. This is the more difficult part of the analysis, especially because there may not be sufficient time to obtain the detailed information needed to trace distortions back to their origins, uncover each of the elements contrib-

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uting to the process, and to estimate their causal relationships. Generally, however, information is readily available about the major policies contributing to price distortions for the most important commodities, as for example, rice in Indonesia or peanuts in Senegal. The form that policy interventions take may include purely domestic measures (price floors, ceilings, or subsidies, etc.), border measures (tariffs, quotas, levies, etc.), or some combination of the two. Of course, the extent to which operational analytical capability and appropriate data exists in the host country determines the extent to which more in-depth quantitative analysis is possible.

In a formal sense, the authority for government interventions lies in rules, laws, and regulations, which, in and of themselves, provide useful information. But policy implementation is much more important than identifying the legal or institutional basis for policies. The nature of a policy impact is determined by how it is actually applied, and the analyst can obtain valuable insights by focusing on the implementation process. If it is known, for example, that a state monopoly exists for staple food commodities, the analyst may find a range of explicit and implicit interventions related to the operation of the monopoly. Interventions may include producer and consumer price controls, government control over all or part of the marketing chain, government determination of quantities bought and sold, and control over imports and exports. It is up to the analyst to empirically determine which of these aspects is controlled and to what extent.

Informal customs and traditions may also affect price and the functioning of "official" policies. While it may be difficult to obtain such information, it can be very valuable. For example, the existence of a varied set of informal passage fees, weight bridge fees, and other local levies considerably raise the cost of domestic marketing in Indonesia and constrain regional specialization in agriculture. Knowledge of such informal interventions is crucial for analyzing agricultural marketing.

Finally, it is necessary to exploit data and analyses available or ongoing at universities and research institutes within the country. Discussions with locally based researchers, policy-makers, administrators, etc., are important information sources in identifying policy interventions. The availability and use of existing analytical information can give credence to the otherwise "informed judgment" nature of the impact analysis phase of the policy inventory.

Describing Principal Policy Interventions

Once major policy interventions are identified in accordance with the scope and focus of the inventory, it is useful to list them in a table, categorized by sector and type (monetary, fiscal, trade, pricing, etc.). During the research process, this table can be used as a data collection device, listing for each intervention the government's purpose, the implementing agency or agencies, and explanatory notes. A microcomputer-based database management system can be useful in organizing, storing and retrieving such information. The next step is to determine the decision-making process and implementing institutions for each intervention. This forms the basis for evaluating the policy impacts and making recommendations.

Government Purpose, Decision-making Process and Implementing Institutions

Countries adopt agricultural policies to meet a wide variety of economic and non-economic goals. Agricultural growth and efficiency are the familiar domain of the economic analyst. But in order to make realistic policy recommendations it may be just as important for the analyst to know about the government's non-economic objectives such as the social goal of increasing access of the poor to productive resources, or the political goal of keeping food prices low in order to satisfy urban consumers.

In most developing countries, some of the more important agricultural policy goals are to improve agricultural productivity, increase output, and achieve food self-reliance. Other objectives include increasing rural incomes, rural employment, and foreign exchange earnings. A particular policy may be designed to address one or more of these and other objectives.

The analyst should be concerned with identifying all of the government objectives that a policy is designed to address. Even a policy that appears to be narrowly targeted to a particular economic objective may involve wider concerns. For example, the direct purpose of fixing a floor price for rice may be to maintain a high and stable price as an incentive for greater investment in rice production. But if rice is grown by the vast majority of farmers and serves as a wage good, the government may also hope to raise farmer incomes through this policy.

On the other hand, several policies may be required to accomplish just one goal. Often, one intervention by the government may require several additional interventions in order to make the original policy effective. It is necessary for the analyst to know this, both to evaluate policy impacts, and to make recommendations. Taking the

example of the floor price, once again, government support of this price may also require a certain amount of state trading in order to purchase excess domestic production at critical times. The government may also have to control imports in order to maintain the internal price level.

It is especially important to know and understand the political dynamics involved in agricultural policy-making, for they often define the boundaries of feasible policy changes. While it may be clear to the analyst that a politically motivated policy impacts negatively on agricultural development, it may be politically unwise for the government to introduce corrective change. A good example is that of a price ceiling on a staple food that has a significant disincentive effect on farmers but is considered politically necessary by the government to keep urban consumers satisfied. In this case, corrective action will be possible only when the political cost of raising the price in terms of the urban consumer exceeds the political cost of low and declining domestic production. This may happen, for example, if food demand can only be met by significant increases in imports, and foreign exchange reserves are low.

Considering political dynamics and non-economic goals does not imply that the analyst conducting the inventory should not do a sound economic analysis. Rather, it suggests that good economic analysis is the first step. The analysis will be more useful to policy-makers if alternative economic scenarios based on different economic and non-economic assumptions are offered for consideration.

For agriculture, the implementing institution usually means the agriculture ministry. But other administrative agencies are usually involved as well depending on the aspect of agriculture being considered. Thus, agricultural trade policies may be jointly formulated by the ministries of trade and agriculture, while annual budget allocations for agriculture are generally the work of the finance ministry. The agriculture ministry will generally not have much input in formulating macroeconomic policies, although such policies impact the sector. However, the agriculture ministry may offer advice on how alternative macroeconomic policies are likely to impact the sector.

Finally, the analyst requires information about the policy-implementing processes, for policy impacts are in large part determined by how policies and programs are implemented. The impact of price policies, for example, depends critically on the level at which prices are set. Generally, various departments or agencies of the agriculture ministry are responsible for policy implementation. If agricultural trade policies are involved, implementation may be the joint responsibility of both the agriculture and trade ministries. Other kinds of policies may also require joint action for implementation.

For each policy identified, it is important to determine the implementing agency or agencies and the division of authority and responsibility between them. Then it is necessary to determine whether the implementing agencies are provided adequate financial and staff resources to be effective. The capabilities, training, and efficiency of agency personnel are also significant factors in effective policy implementation. Price policy interventions for example, can be rendered ineffective if implementing agencies do not carefully monitor prices on an ongoing basis. Price policy can also be made ineffectual if the administering agency does not have adequate resources to make price support intervention purchases when prices drop below the floor. Evaluation of these and other dimensions of policy implementation are necessary in conducting the policy inventory.

Evaluating Policy Impacts

Policy interventions are intended to improve welfare in the agricultural sector, the economy as a whole, or for particular segments of society such as consumers, producers, or both. However, as mentioned earlier, since policies distort markets, they inevitably impose costs, both in terms of resource misallocation and distributional effects. Policies and programs also involve financial costs which are generally associated with policy implementation and administration. Further, costs and benefits generally accrue to different socioeconomic groups. The analyst's task in evaluating policy impacts is to determine the magnitude and distribution of costs and benefits of each of the principal policy interventions; which socioeconomic groups gain, which groups lose, and how the losing groups can be compensated without completely eroding the policy reform induced net benefits.

Standard economic analysis generally attempts to quantify the welfare gains and losses arising from policy interventions. It also attempts to determine the distribution of these gains and losses in terms of producers, consumers, taxpayers, and other groups of interest. Economists may attempt to quantify the economic and distributional effects of alternative policy scenarios by applying various modeling techniques.

It may be possible to conduct the above social welfare analysis only if there are ongoing research and modeling studies being conducted in the country and the results and analytical capability are available. If not, the analyst should adopt a more practical approach, quantifying the impacts wherever possible and relying on a qualitative analysis for the rest. However, as estimates of supply and demand elasticities and other necessary parameters become more available, consumer and producer surplus analysis is

being applied in simple microcomputer based spreadsheet type of policy analysis tools. For example, see APAP Library of Microcomputer Tools for Supporting Policy Analysis No. 2: Economic Gains and Losses from Government Interventions in a Commodity Sector (Li and Stoecker. In process).

The analyst's task in determining policy impacts is to:

- Evaluate the financial and economic costs and benefits of current policies and the distribution of these costs and benefits. In general, the distribution of costs between taxpayers and consumers would be of major interest.

The first step in a qualitative analysis of impacts is to set up a matrix or matrices, as necessary, and fill in the known or estimated direction of impact for each intervention. This is shown in Column 4 of the tables in Appendix I for a general inventory. This provides a summary description of the nature of the impacts, whether they are positive, negative, neutral or indeterminate for each area of impact.

The next step is a more detailed evaluation of each policy. The types of questions of interest are the following:

1. a. How effective is the policy in meeting the objective?
 - b. If the policy is not effective, is it due to implementation problems? Or are there other (institutional) problems?
 - c. Is the selected policy at fault? In other words, is this an appropriate policy given the objective?
2. a. What are the benefits and costs of the policy?
 - b. How are the benefits and costs distributed?
 - c. Do the costs out-weigh the benefits or vice versa?
3. a. Are there unintended consequences?
 - b. Do the unintended consequences improve welfare or raise costs?
 - c. How are the benefits and costs of the unintended consequences distributed?

The answers to these questions will facilitate evaluating the entire policy set and enable the analyst to establish reform priorities.

Identification of Alternatives

Once the analyst has determined that a policy or set of policies ought to be reformed, it is useful to provide the policy-makers and donor with a set of recommendations for alternative courses of action.

The analyst may decide that a particular issue or set of issues requires additional research and analysis. Some issues may be too complex or sufficient data may not be available during the course of a policy inventory for the analyst to decide whether or not the policy should be changed. In this case, the analyst can provide a useful service by identifying issues that need further investigation and analysis. The analyst can also make suggestions as to the most useful analysis for further decision-making. In the process of determining these alternatives, the analyst should consider the government's overall objectives and use the following questions to guide his or her thinking:

1. Is this an appropriate set of objectives given current conditions in the macro-economy and the agricultural sector?
2. Do the stated objectives "match" the objectives as "revealed" by the government's actions in implementing agricultural sector policy?
3. Can the objectives be met by agricultural policies?

The analyst may suggest that the policy or set of policies should be rescinded. Such a drastic solution should be offered only if it is determined that the cost of continuing the policy in economic, financial, political or other terms is not sustainable. It is necessary for the analyst to support this recommendation with strong evidence.

A second alternative is to suggest that the policy should be continued with modifications. This would be a solution if a policy was considered basically sound, the benefits outweighed the costs, and the distribution costs were socially and politically acceptable but there were implementation problems. This recommendation should be accompanied by suggestions for alternative courses of action to solve the implementation problems.

The third alternative is for the analyst to suggest that a policy be replaced by other, more appropriate policies. In many cases, a selection of alternatives is available to meet a policy goal. For example, if the goal is to protect a country's infant poultry industry, the government may want to restrict imports, subsidize feed inputs, or support producer prices.

When the policy inventory information set is complete, it should be carefully reviewed for completeness, consistency and accuracy.

APPENDIX II

FORMAT FOR A POLICY

INVENTORY - THE EL SALVADOR EXAMPLE

POLICY CATEGORY: MACROECONOMIC, FISCAL

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. level and structure of taxation/ agriculture	revenue generation	- Ministry of Finance - National Assembly	-1	0	-1	-2	+1	taxes extracted from the agricultural system have averaged 10-11% of agricultural value-added <u>1/</u> 90-95% of the sector's fiscal contribution originates in the coffee export tax, which, at current prices and exchange rates, has a strong negative impact on the profitability of coffee production. Declining coffee output is closely related to falling agricultural employment, income, and consumption	1. revise coffee export tax to more nearly approximate an income rather than gross sales basis 2. broaden the tax base 3. improve tax administration and collections
2. level and structure of expenditures/ agriculture	provide public goods, services, and infrastructure	- Ministry of Finance - National Assembly	-1	-1	-1	?	+1	central government expenditures on agriculture <u>2/</u> at 6-7% of total expenditures are low in comparison to agricultural sector tax revenues and to agriculture's contribution to GDP. While agriculture's share in central government's expenditures has remained constant, its share is of a declining total in real terms. Expenditures are biased in favor of livestock and traditional export crops.	1. as conditions permit, increase real levels of expenditure 2. prepare revision of intrasectoral allocation of expenditures in light of short- and medium-term national development objectives. (See Table 5, Sectoral Fiscal Policy)

LEGEND: -2 = Highly Unfavorable; -1 = Unfavorable; 0 = Neutral or Negligible; ? = Mixed or Uncertain; +1 = Favorable; +2 = Highly Favorable
 NOTES: 1/ not including income and stamp taxes, which are thought to be small though specific data are unavailable
2/ includes current and capital expenditures, not financial investment

POLICY CATEGORY: MACROECONOMIC, MONETARY

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. Interest rate regulation/ agriculture	regulate supply and demand for fi- nancial resources; influence costs	- Monetary Board - BCR	+1	0	+1	+1	+1	The GOES has adopted an interest rate structure designed to provide for a positive real rate of return to savers and full cost recovery on lending operations. Agricultural borrowing rates are only modestly lower than other sectors. Through its impact on savings, this policy should enhance investment and growth over the medium-term.	1. More active imple- mentation through more flexible and frequent interest rate revisions 2. Study interest rate measures to foster the development of long-term financial instruments
2. supply of credit/ agriculture	support production, processing, and marketing	- BCR - Commercial Banks - BFA - Cajas de Credito	-2	-1	-1	-2	-2	While efforts have been made to increase agri- culture's share in total lending, new credits to the agricultural sector have fallen 25% in real terms since 1979. Refinancing has grown from 9 to 33.5% of total credit to the sector, while arrears and debt service obligations continue to accumulate.	1. Refinance outstanding overdue loans on extended repayment terms 2. Increase volume of new credits to agri- culture 3. Study restructuring of agricultural credit to provide finance for nontraditional crops, ag. processing, and marketing

LEGEND: -2 = Highly Unfavorable; -1 = Unfavorable; 0 = Neutral or Negligible; ? = Mixed or Uncertain; +1 = Favorable; +2 = Highly Favorable
 NOTES: 1. The Monetary Board is composed of the heads of the following institutions: Central Bank and the Ministries of Planning, Economics, Finance, Agriculture and External Trade.

POLICY CATEGORY: MACROECONOMIC, EXTERNAL TRADE

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. support of the official rate of exchange/ agriculture	avoid inflationary and, possibly, contractionary short-term conse- quences of de- valuation. Pre- serve political credibility	- Monetary Board - BCR - MICE	-2	-2	-2	-2	?	An overvalued exchange rate reduces the domestic price of tradeable goods, which include virtually all agricultural commodities. While there is some controversy regarding the short-run impacts of devaluation in El Salvador given current conditions, there is no question that the medium-term development prospects of the agricultural sector are jeopardized by an overvalued exchange rate. The recently initiated process of selective devaluation suffers from the following: (1) ad hoc implementation by fiat -- contributes to uncertainty and sociopolitical tension; (2) no intrinsic correspondence between sector or subsector imports and exports -- creates potential for distortions and windfall gains/losses; (3) administratively complex; (4) given its uncertain and selective implementation, may not be providing the desirable incentives of a devaluation, especially as regards needed investment decisions.	1. Further selective devaluation 2. crawling peg 3. official devaluation 4. Higher import tariffs with export subsidies
2. import tariffs/ agriculture	generate revenues; protect domestic suppliers	- Ministry of Finance - MICE	0	0	0	0	1	Agricultural inputs and commodities imported from the CACM are largely exempt from tariffs. Applicable tariff rates for non-CACM imports of these types of goods are low. Explicit tariffs on agricultural imports have little impact on the sector..	1. In the absence of devaluation, higher tariffs on competitive imports of agricultural commodities may be considered

LEGEND: -2 = Highly Unfavorable; -1 = Unfavorable; 0 = Neutral or Negligible; ? = Mixed or Uncertain; +1 = Favorable; +2 = Highly Favorable

NOTES: (Continued...)

POLICY CATEGORY: MACROECONOMIC, REGULATORY

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. regulation of the nationalized banking sector/ agriculture	control of domestic financial flows	- BCR - National Assembly	+1	-1	+1	+1	-2	As evidenced by agriculture's share in total credit, which is substantially larger than its share in GDP, nationalized management of the banking sector has probably averted a collapse of commercial lending to agriculture. Small farmer access to credit has also improved. This has been accomplished, however, at the cost of increasing GOES transfers to the financial sector, especially that part of the financial sector serving the agrarian reform. Also, due to general economic conditions, credit flows are not adequate to meet agricultural sector needs.	1. implement an agricultural pricing strategy to enhance the financial viability and repayment capacity of the agricultural sector 2. as economic stability is recovered, study means to liberalize and decentralize management of the commercial banking sector. Such a liberalization should specifically emphasize the development of new financial institutions/markets to serve the needs of small-scale and non-traditional agriculture. Specialized credit coops may be an option.

LEGEND: -2 = Highly Unfavorable; -1 = Unfavorable; 0 = Neutral or Negligible; ? = Mixed or Uncertain; +1 = Favorable; +2 = Highly Favorable

NOTES: 1. It is unlikely that a purely commercial financial sector would have been able, given the interests of its stockholders, to maintain services to the agricultural sector during the recent period of war and political insecurity.

POLICY CATEGORY: SECTORAL, FISCAL

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. level of taxation/ coffee	generate revenues	- Ministry of Finance - National Assembly	-2	0	-1	-2	+1	While total taxes have averaged 11-13% of GDP in El Salvador since 1979, the coffee export tax represents 20-25% of value-added by coffee. At current prices and exchange rates, few coffee producers, including those of the agrarian reform, are able to realize any profit after taxes. Coffee production has declined by about 25%, at an accelerating rate. Employment and incomes generated by coffee have fallen commensurately. Accumulated losses, indebtedness, and the spread of coffee rust due to reduced expenditures on fungicides, seriously threaten the survival of this industry which has traditionally provided 50-60% of El Salvador's foreign exchange earnings.	1. revise the coffee export tax base to exempt estimated production costs from taxation 2. revise marginal tax rates on coffee producer incomes in accordance with foreign exchange rate policy ¹
2. level and structure of taxation/ other agriculture	generate revenues	- Ministry of Finance - National Assembly	0	0	0	0	0	The coffee export tax provides 90-95% of revenues extracted from the agricultural sector. ²	1. study alternatives for sharply increasing the land tax. The current assessment of approximately \$1.50 per ha. per year generates little revenue. A progressive land tax can discourage land concentration and speculation, thus complementing agrarian reform, and encourage more intensive land-use. 2. increase tariffs on competitive food imports 3. improve the collection of agricultural income taxes 4. study the incidence of the stamp (turnover) tax on agriculture. To the extent that it is enforced in agriculture, it may generate

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NOTES: 1. Devaluation to 24:1 could permit the maintenance of high marginal tax rates on a revised base. In the absence of devaluation, marginal rates may also need to be reduced.

2. Not including income and stamp taxes, as explained in the note to Table 1.

POLICY CATEGORY: SECTORAL, MONETARY

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. Interest rate regulation/ intrasectoral	to provide incentives for particular activities in agriculture	- Monetary Board - BCR	0	0	0	0	0	A one percent interest rate discount is currently provided on crop credits for basic grains, non-traditional export crops, and coffee harvesting for small and medium growers. The impact of this policy is likely to be minimal, however, in relation to the currently constrained access to adequate volumes of credit. Access to credit is in general a far more significant factor than interest rates. Interest rate subsidies can adversely affect financial sector liquidity.	1. study incentive structures based on explicit subsidies (where subsidies are justified) as a substitute for interest subsidies 2. consider means of developing and incorporating informal rural credit markets into the agricultural financial system. Farmers are often willing and able to pay higher than commercial rates in return for timely credits. Informal lenders are often more effective at providing credit to small farmers. The organization of grassroots credit cooperatives may also be considered.
2. supply of credit/ intrasectoral	support production processing, and marketing	- Monetary Board - BCR	-2	-1	-1	-2	-2	Current credit volumes are grossly inadequate to support recovery and future growth of agriculture. Of credits made available in 1983, 78% went to traditional export crops, 9% to basic grains, 8% to livestock, and only 5% to other crops. BFA faces serious financial and administrative problems.	1. undertake an appropriate agricultural pricing strategy 2. refinance outstanding overdue loans on extended repayment terms. This measure will primarily benefit the Phase I Agrarian Reform Cooperatives, and the non-reformed coffee and cotton subsectors. 3. increase volume of new credits to finance rehabilitation and production

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POLICY CATEGORY: SECTORAL/EXTERNAL TRADE

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. Import tariffs/ agricultural inputs	generate revenues	- Ministry of Finance - MICE	-1	+	-1	-1	+1	Imports of agricultural goods from the CACM are generally exempt from duties but are subject to stamp tax. ¹ Imports from outside the CACM are also subject to the stamp tax plus ad valorem duties ranging from 2-15%. Levies are relatively light and impacts on the agricultural system moderate.	1. If a devaluation takes place, reduce or eliminate both the stamp tax and import duties on agricultural inputs.
2. Import tariffs/ agricultural commodities	generate revenues, protect domestic producers	- Ministry of Finance - MICE	+1	+1	?	?	+1	Non-competing imports from outside the CACM (e.g. wheat) are taxed at a lower rate other than the stamp tax. Competing imports generally bear a specific duty, combined with the stamp tax and an ad valorem duty ranging from 8-30%. A moderate degree of protection is provided to domestic producers.	1. In the absence of a devaluation, consider increasing tariffs on competing agricultural imports
3. export subsidies/ intrasectoral	promote non-traditional exports	- Monetary Board - Ministry of Finance - MICE	+2	+1	-1	+2	-1	Non-traditional exports outside the CACM are implicitly subsidized in two ways: preferential interest rates, and access to the parallel foreign exchange market. The effectiveness of access to the parallel market in stimulating exports is dramatically illustrated by the 55% real expansion of the Salvadoran poultry industry since 1979.	1. Devalue to restore profitability and stimulate exports of the agricultural sector as a whole. 2. In the absence of devaluation, move traditional agricultural export products to the parallel market or institute system of import tariffs and explicit export subsidies. 3. Eliminate subsidies through preferential interest rates.

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 NOTES: 1. This exemption of CACM agricultural trade from duties applies to both agricultural inputs and commodities.

POLICY CATEGORY: SECTORAL/RESOURCES

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. land-use/ intrasectoral	to promote the efficient utilization of soils	- National Assembly - Ministry of Finance - Ministry of Economics - MAG - ISTA	-2	-2	-2	-2	-2	Only 47% of land suitable for intensive annual cropping is devoted to such uses in El Salvador today; only 16% of the country's irrigation potential has been realized; about 18% of land currently in agricultural or ranching use should be withdrawn from production in the interest of soil and/or water conservation. Inattention to the land-use impacts of pricing and other policies, and the lack of a positive land-use policy favoring intensification contribute to low productivity in spite of land scarcity.	<ol style="list-style-type: none"> 1. implement a pricing strategy to restore profitability to agricultural production 2. consider the more active use of land taxes as an instrument to promote land-use intensification, the retirement of marginal lands from production, and a more efficient size structure among farming units 3. liberalize and clarify land tenure and agricultural property rights legislation to facilitate the shift of present land-use patterns to better and higher uses organized on the basis of more efficient farm unit sizes. Intensification of agricultural production, particularly as it will involve horticultural and fruit crops, may be best accomplished through smaller farm unit sizes than currently characterize either the Phase I agrarian reform or the traditional export sectors. 4. actively pursue development of irrigation potential making maximum possible use of private sector resources

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 NOTES:

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POLICY CATEGORY: SECTORAL/TECHNOLOGY

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. Research, extension, and technical assist- ance/intrasectoral	to identify and propagate agri- cultural pro- duction, process- ing, and marketing technologies which are consistent with national de- velopment objectives	MAG through: CENTA ISTA	-1	-1	-1	-1	-1	<p>The research/extension and technical assistance (RETA) effort in El Salvador today is: under-funded, under-manned, and misdirected. While major emphasis has been placed on serving the agrarian reform sector, recent evaluation reports indicate that less than half of the Phase I coops and perhaps fewer than 20% of the Phase III beneficiaries received any assistance during the 1982/83 crop year. RETA efforts remain focussed on traditional export crops and basic grains. These are crops characterized by slow technical progress and slow demand growth. Obstacles to small farmer adoption of available technologies for these crops are mostly of a nature that must be resolved -- through interventions in other parts of the agricultural system (i.e., land security, credit, marketing); not through extension. The present Salvadoran RETA system does not do an adequate job in providing farmers with information and assistance with the new, high-potential agronomic opportunities that must be the primary source of future agricultural growth in El Salvador.</p>	<ol style="list-style-type: none"> 1. provide incentives/ remove obstacles to the development of more private sector capability in technical assistance for agriculture 2. focus GOES research efforts on: <ol style="list-style-type: none"> a) the cost-effective solution of specific high-priority problems in traditional agriculture such as coffee rust and environmentally acceptable pest management systems for cotton b) field trials and adaptation of cultivars suitable for intensive production c) extension efforts emphasizing these new cultivars, on-farm water management, handling, storage, and other on-farm processing techniques 3. provide the working conditions necessary to attract and retain high-quality technical personnel

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POLICY CATEGORY: SUBSECTORAL

POLICY INTERVENTION/ IMPACT SECTOR	PURPOSE	POLICY-MAKING/ IMPLEMENTING INSTITUTIONS	IMPACT ASSESSMENT					EXPLANATION OF POLICY INTERVENTION AND IMPACT	PRINCIPAL ALTERNATIVES SUGGESTED FOR ANALYSIS
			PRODUCTION	IMPORT EXPENDITURES	DOMESTIC CONSUMPTION	EXPORT REVENUES	GOVERNMENT REVENUES		
1. producer price supports through direct purchases/ basic grains	to maintain production incentives and farm incomes	IRA	?	?	0	0	-2	Due to both financial and storage capacity limitations, IRA is unable to purchase a large enough portion of domestic basic grain production to significantly alter average market prices, although individual producers may benefit from access to the IRA market. IRA's influence on producer prices is mainly significant in that it can alter total marketed supply through grain imports. Grain imports, however, work to reduce rather than increase average producer prices. IRA operating losses constitute a substantial continuing drain on the public treasury.	<ol style="list-style-type: none"> 1. study the possibility of transferring some or all of IRA's centralized storage capacity to producer co-operatives 2. study means to improve the efficiency of the existing private sector marketing system 3. focus public sector purchasing activities in those areas where remote access or other factors indicate a low degree of competition among private grain merchants
2. consumer price controls/ basic grains	to maintain consumer prices at "reasonable" levels	Ministry of Economy, IRA	0	0	0	0	0	The Ministry of Economy publishes, and attempts to enforce, maximum retail prices for basic grains and a variety of other consumer goods. Effective enforcement is a near impossibility, however, and price controls are almost universally ignored.	<ol style="list-style-type: none"> 1. dismantle the price control system, replacing it with direct and specifically targeted consumer subsidies where these are warranted.

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