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A FUNCTIONAL ANALYSIS OF THE DIRECTORATE OF AGRICULTURAL POLICY

A Special Report Prepared for the
Directorate of Agricultural Policy,
Ministry of Food, Agriculture and Cooperatives,
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by

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The purpose of this paper is to suggest a functional perspective for revising the Ministry of Food, Agriculture and Cooperatives' agricultural policy analysis operations in view of the objectives of the Economic Analysis Network Project and the Ministry's intentions to strengthen its economic and policy analysis capabilities.

ORGANIZATION OBJECTIVE:

The primary mission of the Directorate of Agricultural Policy is to provide relevant and timely information and analyses appropriate for supporting the Ministry of Food, Agriculture and Cooperatives's efforts to improve Pakistan's food security.

The DAP will supply policy information to support the Ministry's implementation of the following agricultural policy process, which is described in more detail in Annex A:

- Identify policy goals
- Identify interest groups
- Identify policy problems
- Evaluate current policies and research results
- Identify potential new research topics
- Set economic research agenda and priorities
- Implement policy research program
- Evaluate research results
- Design implementation plans for modified policies

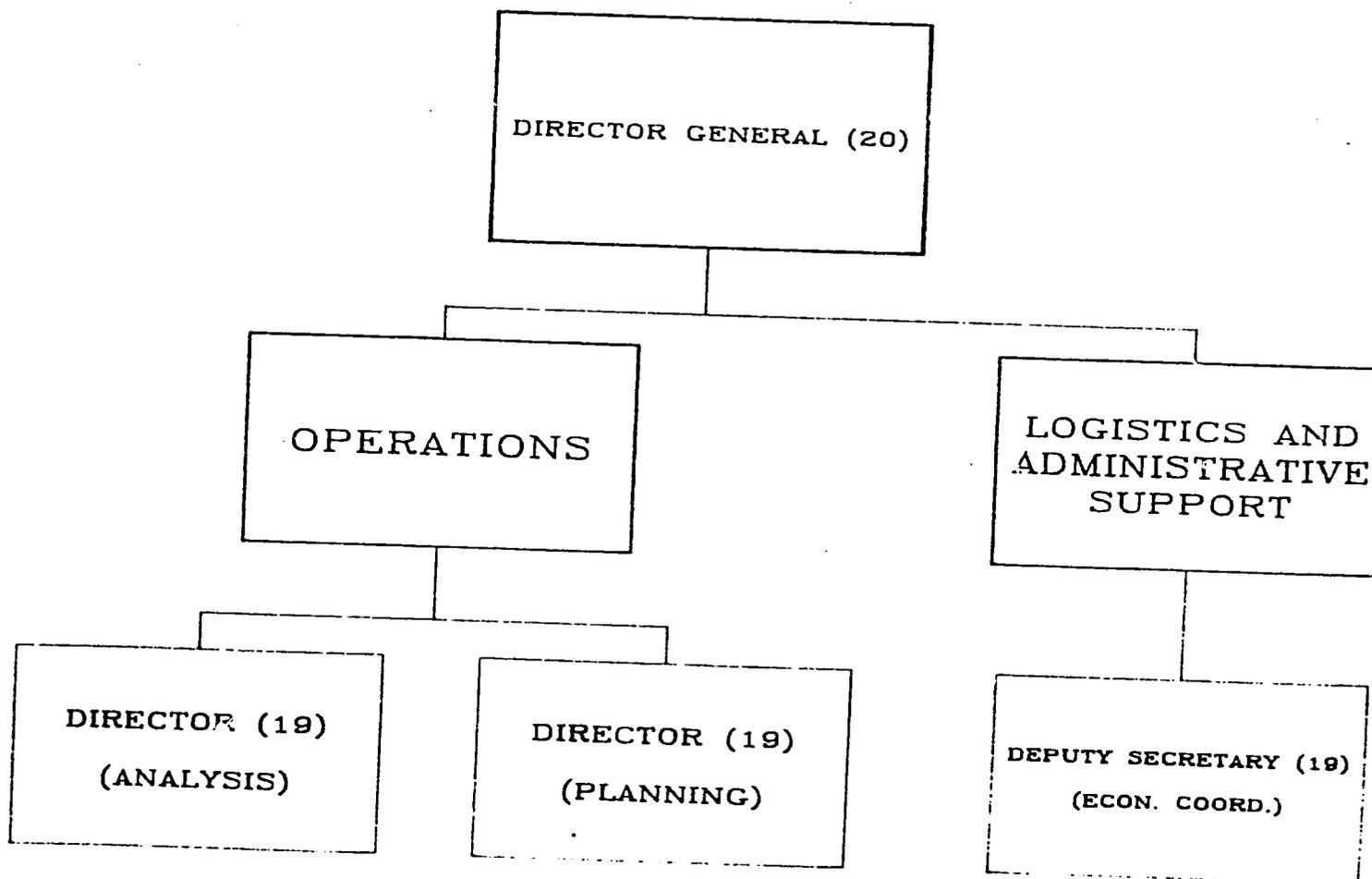
OPERATIONAL AREAS:

The DAP will achieve its mission through three operational areas: policy analysis and policy planning, and logistical and administrative support. The broad organizational framework is presented in Figure 1.

ANALYSIS OPERATIONS:

Policy analysis will be supervised by a Grade 19 Deputy Director and implemented through three sections: demand, agribusiness and supply. Each section will be headed by a Grade 18 Deputy Director. The primary functions of this group will be to review research results, summarize secondary data and prepare policy options briefing papers on the implications of current and alternative policies on Pakistan's food security. The organization of analysis operations is based on an EAN Project

FIGURE 1. ORGANIZATION OF DIRECTORATE OF AGRICULTURAL POLICY



Study by Nobe and Skold¹ and a discussion of the DAP research program in Annex A. Key operational features of Analysis operations are as follows:

1. No major primary data collection operations will be mounted by the staff;
2. All research studies requiring more than three calendar months to complete will be contracted to firms or economic research institutions prequalified under the framework established by the EAN Project;
3. All studies contracted by DAP will be completed in no more than 12 calendar months after the contracts are signed, with most studies being finished within four to six calendar months; and
4. The Analysis staff will serve most MINFAC policy support needs by preparing timely policy options briefing papers based on a distillation of research reports from the Economic Analysis Network and special short-term, internal studies conducted by Analysis staff on urgent policy issues;

DEMAND:

The demand section will analyze available secondary data and research results to assess trends in food and fiber demand, by commodity and income group. Specific tasks will include:

- Summarizing and comparing data from the FBS Household Income and Expenditure Surveys,
- Comparing FBS survey results with results implied by demand parameters estimated by other studies,
- Forecast intermediate (3-10 year period) demand for food and fiber,
- Prepare short studies of urgent food and fiber demand policy issues, and
- Maintain current briefing papers on major food and fiber demand policy issues, including descriptions of the policy problems, status of current policies and implications of alternative policies.

1. Skold, Melvin D., and Kenneth C. Nobe. *Agricultural Policy Research and Analysis: Implications for the Pakistan Economic Analysis Network Project*. Special Report No. 4. Islamabad: Directorate of Agricultural Policy, Ministry of Food, Agriculture and Cooperatives, Government of Pakistan, May 1988.

AGRIBUSINESS:

The agribusiness section will analyze available secondary data and research results to assess market trends in the transportation, storage, processing and merchandising of important agricultural inputs and food and fiber products. Specific tasks will include:

- Summarizing and comparing data from the FBS Monthly Statistical Bulletins on wholesale and retail prices of agricultural inputs and products,
- Comparing FBS market price differentials with market margins estimated in other studies,
- Forecast intermediate (3-10 year period) prices of important agricultural inputs and food and fiber products ,
- Prepare short studies of urgent agribusiness policy issues, and
- Maintain current briefing papers on major agribusiness policy issues, including descriptions of the policy problems, status of current policies and implications of alternative policies.

SUPPLY:

The supply section will analyze available secondary data and research results to assess trends in farm production, aggregate supply of food and fiber products, and demand for agricultural inputs. Specific tasks will include:

- Summarizing and comparing published data on agricultural production,
- Summarizing research studies on farm management, costs of production and agricultural production functions and assessing the implications for policies on pricing, technology transfer and input supply,
- Forecast intermediate (3-10 year period) supply prices of important food and fiber products,
- Summarize the supply response effects of typical product and input price changes in available agricultural supply models,
- Prepare short studies of urgent supply policy issues, and
- Maintain current briefing papers on major supply policy issues, including descriptions of the policy problems, status of current policies and implications of alternative policies.

PLANNING OPERATIONS:

Agricultural planning will be supervised by a Grade 19 Deputy Director and implemented through two sections: statistics and projects. The primary functions of this group will be to: assemble and prepare summaries of secondary data on agricultural production for publication; maintain a computerized database of relevant agricultural statistics required for policy research; evaluate all MINFAC projects; and review the need for new projects to address key policy issues. The Planning staff will maintain a timely, relevant statistical database in support of policy analysis operations. The Planning staff will also review all agricultural projects in view of GOP agricultural development policies and recommend changes needed to strengthen project support for improved food security.

STATISTICS:

The statistics section will assemble available secondary data for publication and entry in a user-friendly computer database. Specific tasks will include:

- Collecting crop production data and agricultural price data from the FBS and Provincial Crop Reporting Services,
- Publishing crop production and agricultural price data in standard statistical and chart formats,
- Prepare short studies of urgent agricultural statistics issues affecting the production of relevant agricultural policy analyses, and
- Maintain current briefing papers on major agricultural statistics issues, including descriptions of the problems, status of current statistics policies and implications of alternative statistical policies.

PROJECTS:

The projects section will evaluate ongoing MINFAC projects and analyze the need for alternative projects to address key agricultural policy issues. Specific tasks will include:

- Collecting data on the performance of current MINFAC projects,
- Evaluating the progress of MINFAC projects with respect to project objectives and external measures of economic progress,
- In cooperation with the Analysis Group, prepare short studies of urgent agricultural project needs, and

- Maintain current briefing papers on major agricultural projects issues, including descriptions of the problems, status of current projects and implications of alternative project policies.

LOGISTICAL AND ADMINISTRATIVE SUPPORT OPERATIONS:

Logistical and administrative support will be supervised by a Grade 19 Deputy Secretary for Economic Coordination and implemented through four sections: publications, data processing, plans, and administration. The primary functions of this group will be to: edit, publish and distribute all DAP research reports, statistics reports and policy options briefing papers to key clients of the DAP; provide computer maintenance and training support for the DAP data processing equipment and software; preparation of MINFAC's input for the Annual Development Plan and the Five Year Plan; and general administrative support of all DAP operations.

PUBLICATIONS:

The publications section will edit, publish and distribute all DAP documents destined for external distribution. Specific tasks will include:

- Advising all research officers on proper writing styles for research and statistical reports and policy options briefing papers,
- Completing final editing of all DAP publications,
- Arranging, in cooperation with the Administrative Officer, the procurement of timely, reliable printing services for all DAP publications, and
- Arranging the distribution of all DAP publications to key clients according to mailing lists maintained by the data processing section.

DATA PROCESSING:

The data processing section will arrange continual maintenance services for all DAP computer equipment and assist the operations group in creating appropriate databases and computer-generated graphics for DAP publications. The data processing section will not engage in program development in BASIC, FORTRAN, COBOL, APL, PL1, ADA, PASCAL, or other similar languages. Specific tasks will include:

- Advising all research officers on applications of existing analytical, database and graphics programs,

- Providing training to all professional and support staff as needed on refresher courses in existing software and introductions to new software packages, and
- Arranging, in collaboration with the Administrative Officer, for the procurement of upgrades of existing software and new software as needed for efficient data processing operations.

DEVELOPMENT PLANS:

The development plans section will prepare all MINFAC reports required for the Annual Development Plan and the Five Year Plan. Specific tasks will include:

- Preparation of analyses, plans and budgets required for MINFAC reports for the Annual Development Plan, and
- Preparation of analyses, plans and budgets required for MINFAC reports for the Five Year Plan.

ADMINISTRATION:

The administration section will provide stenographic, clerical and financial support for all DAP analysis and logistics support operations. Specific tasks will include:

- In cooperation with the Data Processing Section, provide timely training in word processing and spreadsheet operations for all stenographic and clerical staff,
- Maintain all DAP administrative records and reports required by MINFAC, and
- Provide financial services required for all analysis and logistical support operations.

ANNEX A

Developing a Research Program for the Directorate of Agricultural Policy²

The Directorate of Agricultural Policy (DAP) is in the process of developing a comprehensive economic research program to facilitate the implementation of a unified agricultural policy process and provide a framework for organizing and revising the EAN Project's annual economic research agenda. The process of agricultural policy analysis is a continuing cycle of at least nine distinct activities. Figure A-1 illustrates the agricultural policy process. A brief description of these activities is given below.

1. Identification of Broad Agricultural Policy Goals

One of the most important goals of Pakistan's agricultural policy is improved food security. Other goals, as stated by decisionmakers and published in annual economic reports and five-year plans, include full employment of domestic resources; an improved trade balance; improved nutritional status for low-income households; and improved incomes for small farmers.

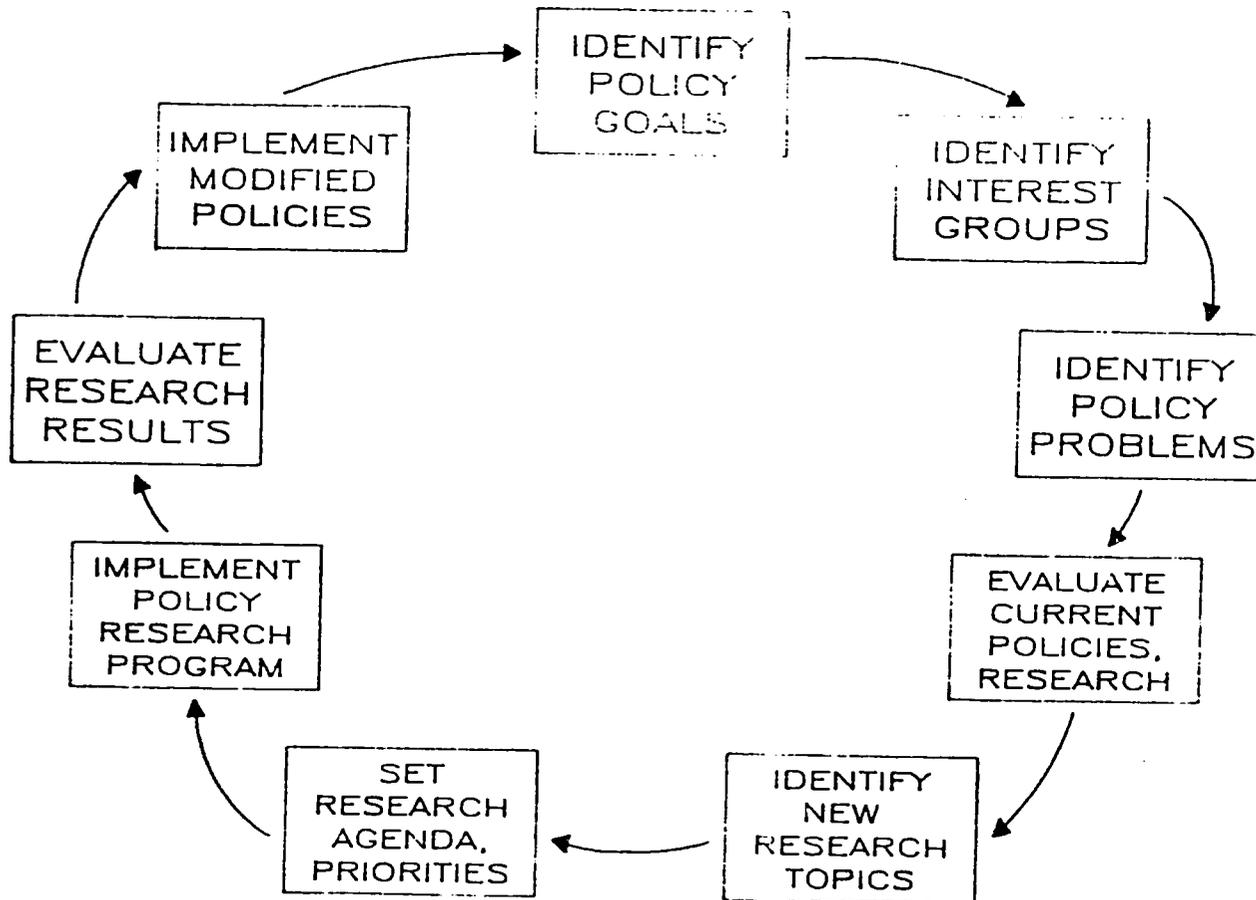
2. Identification of Major Interest Groups Contributing to and/or Affected by Policy Goals

There are at least five important groups with vital interests in the formulation of agricultural policies. These are: (a) household consumers of food; (b) agribusinesses providing services to link inputs to farmers and agricultural commodities to household consumers; (c) farmers producing food for subsistence and sale; (d) suppliers of such agricultural inputs as land, labor, capital, water, chemicals, and improved technologies; and (e) government policymakers, who are responsible for promoting improved national economic welfare.

2. An earlier version of this section appeared in:

Morgan, Larry C. "Developing A Research Program for the Directorate of Agricultural Policy," *The Econogram* (The EAN Project Newsletter), Vol. 4, No. 1, February 1988, pp. 3-4.

FIGURE A-1. THE AGRICULTURAL POLICY PROCESS



3. Identification of Major Policy Problems Shared by Some or All Interest Groups

Problems related to current economic policies are identified by interaction of interest groups with government decisionmakers and independent studies by policy analysts. The problems are usually stated in terms of shortcomings in meeting agreed national economic policy goals.

4. Evaluation of Current Policies and Research Results Relating to Policy Problems

As new policy problems are identified, government decisionmakers may request policy analysts to assess the economic effects of current policies and relevant economic research results to identify new policy research needs.

5. Identification of New Research Topics Needed to Resolve Policy problems

New policy research needs are usually transformed into specific research topics that should yield the information required to develop and implement more effective economic policies.

6. Establishment of a Policy Research Agenda and Priorities for Managing Research Resources

The economic research program supporting the policy process is unlikely to have sufficient resources to study thoroughly each proposed policy research topic. The EAN Project has implemented a research program based on an agenda of 13 topics. However, the program can be managed more effectively by classifying all proposed research topics into a research agenda based on the establishment of priorities across broad areas of agricultural policy concerns, and priorities for all studies supporting a particular policy concern.

7. Implementation of the Policy Research Program

DAP has implemented a program of economic research in conjunction with EAN, cooperating public sector institutions, and private research firms. Supplemental research support has been provided through special commissioned studies conducted by the Chemonics and DAP professional staff.

8. Evaluation of Results of the Policy Research Program

As research studies are completed, the government's policy analysis agencies are responsible for evaluating the studies for their compliance with the terms of reference and their value to decisionmakers in formulating improved policies. DAP has been

organized to monitor EAN research contracts and prepare summary briefs of research results that are relevant to decisionmakers' agricultural policy information needs.

9. Implementation of Modified Policies to Address Current Policy Problems

After reviewing the results of studies that were initiated to produce information on the economic consequences of a particular policy problem and of alternative policies to address the problem, the decisionmakers must review the findings and adopt a policy that appears most promising in meeting policy goals. The decisionmakers' new policy choice may not necessarily reflect the course of action suggested by economic research because of social, political and administrative impracticalities in implementing the "best" economic solution.

Continuation of the Policy Process

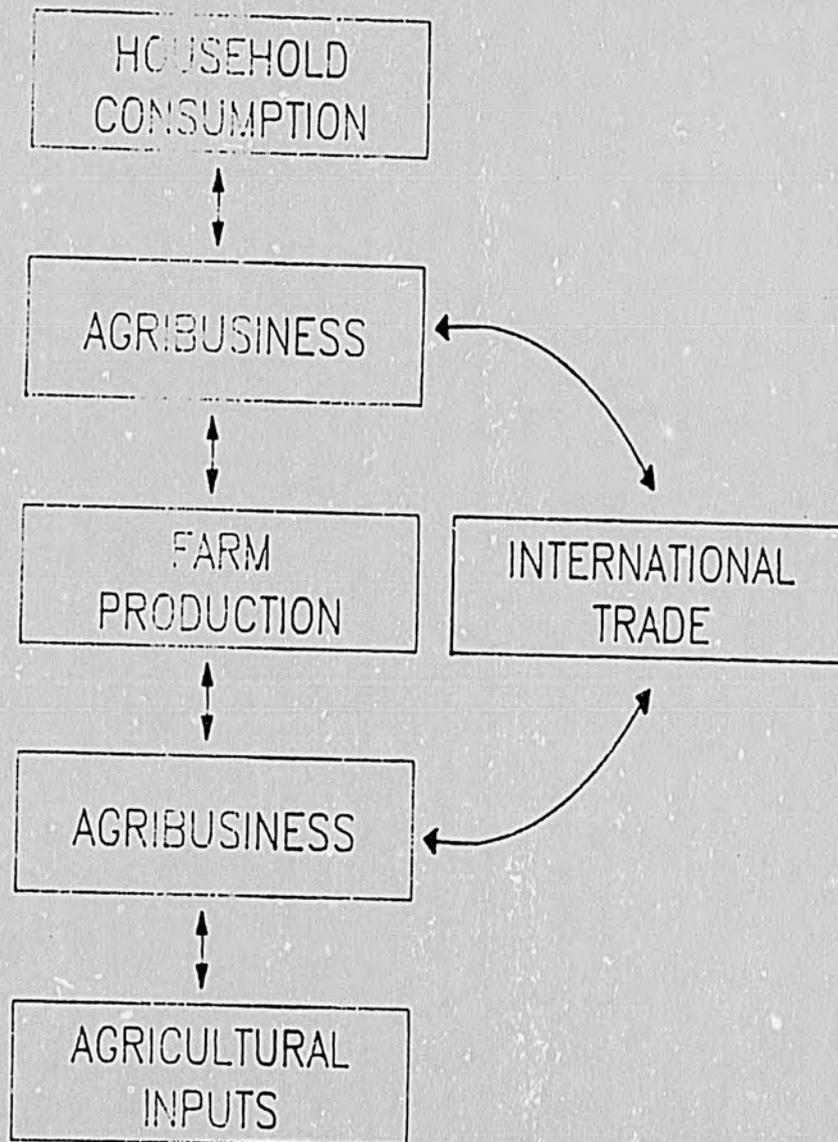
Once a new policy choice has been implemented, the policy process continues through the nine-step cycle as interest groups (a) reappraise policy goals and the effectiveness of the new policy in attaining those goals, and (b) identify needed new policies and policy research.

An Agricultural Policy Analysis Framework

As research topics are scheduled for implementation, special care must be taken to place each study in a research management framework that considers the relevant policy interest groups, the availability of researchers with appropriate subject matter skills, and the relevant functional market activity. In the agricultural policy analysis framework shown in the Figure A-2 below, household consumption has two-way interaction with agribusiness in the marketing of food and fiber products in response to consumer demand. Farm production interacts with agribusiness marketing functions in demanding agricultural inputs and supplying agricultural products. The owners and suppliers of agricultural inputs interact with agribusiness marketing in meeting farm input demands. Finally, agribusiness in the input-farm production linkage and the farm-household consumption linkage also simultaneously interacts with international trade functions to adjust national food and fiber market imbalances with international input and product markets.

The five major areas of agricultural policy emphasis are described below in terms of major interest groups and policy research objectives.

FIGURE A-2. A. AGRICULTURAL POLICY ANALYSIS FRAMEWORK



POUFRMA2

Household Consumption of Food and Fiber

The major interest groups here are all households which, as final consumers, have vital interests in attaining a reliable supply of food and fiber at reasonable prices. Households are also interested in attaining sufficient nutrition to assure sound health and labor productivity. The general welfare of households, in particular food security, is one of the most important responsibilities of government decisionmakers.

The major policy research objectives in this area are to estimate the effects of changes in price policy and disposable income on household demand for food and fiber products; to estimate the effects of alternative price and agricultural supply policies on household nutritional status; and to identify the nature of shifts in household food budget shares over time.

Agribusiness

Agribusiness interest groups include all public and private businesses organized to supply inputs to farmers or which transport, store, process, and merchandise agricultural commodities, from farmgate to consumer. Government decisionmakers have important interests in this sector to insure timely marketing of agricultural inputs and products at reasonable costs.

The estimation of marketing margins of major agricultural products between the farmgate and the retail consumer, potential net economic benefits from the adoption of alternative transport, storage, processing, and merchandising technologies, and the net economic benefits of alternative arrangements to avoid marketing risks, are some major policy research objectives in the area of agribusiness. Estimation of the net social benefits of current subsidies and price support policies is another important area of research.

Farm Production

All farmers are the primary element of the government's food security strategy. Subsistence farmers require special consideration because they are among the nation's poorest households and depend on food production to survive, while farmers who market surplus production are of vital interest to decisionmakers because their productivity directly affects the supply of food to urban consumers and also the nation's agricultural trade balance.

Some important policy research objectives here are estimation of the physical input-output relationships, the aggregation of supply response models, and the estimation of enterprise budgets, for all major agricultural products.

Agricultural Inputs

The main groups with interests in agricultural inputs are the owners of natural resource inputs such as land and irrigation water; the owners of human resources, such as hired farm labor; owners of agricultural durable and financial capital; the suppliers of such purchased farm inputs as feed, seed, fertilizer, pesticides, and fuel; and the suppliers of agricultural technology, such as PARC.

In this area, researchers will give their particular attention to estimation of: (1) demand for major inputs by agricultural product in response to changes in input and product prices and technology; (2) estimation of supply of major inputs according to changes in prices and opportunity costs; (3) implications of reduced supplies of critical inputs; and (4) potential savings on current input costs by adoption of alternative technologies.

International Trade

The main groups interested in international agricultural trade include agribusinesses marketing agricultural inputs and products, and government agencies concerned with international trade regulations and balance of trade payments.

Estimation of long-run trends in border prices of agricultural products and inputs and their implications for Pakistan's food security is a major policy research objective. Other objectives include estimation of: (1) Pakistan's comparative advantage in major agricultural commodities; (2) the effects of increased agricultural production on the demand for imported inputs; and (3) the effects of exchange rate policies on the agricultural trade balance.

A Revised Research Agenda

A new EAN research agenda should be formulated by the Advisory Committee on Policy Analysis in Agriculture (ACPAA), or a new streamlined 3-5 person Executive Advisory Committee. To effectively utilize DAP research resources, address priority policy problems on a timely basis, and give DAP guidance on long-term policy research planning, the Advisor Committee should set priorities for the five general policy research areas discussed earlier. Within each general policy research area, priorities should be set for each topic to allow more effective use of research resources on a particular policy research area.

The identification of new research priorities by the Advisory Committee will help the Directorate of Agricultural Policy strengthen the economic and policy analysis capability of the Ministry of Food, Agriculture and Cooperatives through the development of an effective program of economic research.