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ANNUAL WORK PLAN

1991-92

Economic and Policy Analysis Project

Economic Wing

Ministry of Food, Agriculture and Cooperatives

Islamabad, Pakistan

Chemonics International Consulting Division

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ANNUAL WORK PLAN

1991 -92

1.0. INTRODUCTION

This document represents a combined effort of the Economic Wing and the EPA Advisors to develop a single Annual Work Plan (AWP). It is the integrated plan of the EW's three directorates and seven sections for managing their limited staff and financial resources to provide relevant economic intelligence to the MINFA, other GOP organizations, and the broader Pakistan food and fiber system in 1991-92. It also fulfills the contractual obligation of the two Economic and Policy Analysis (EPA) project advisors to provide USAID/ARD with an annual work plan of their advisory and technical assistance services to the EW during 1991-92.

This AWP originated out of an EPA work plan prepared by the EPA Advisors for 1990-91 in consultation with EW Officers. As that original work plan has undergone successive revisions, it has gradually become more of an EW work plan. This version of the work plan still retains a broad outline of some of the activities envisioned to be accomplished over the three years life of the EPA project but emphasizes those activities that constitute the planned statistical, economic research and policy analysis activities of the EW for 1991-92. And although the AWP contains some EPA contractual requirements such as EPA quarterly and end of project reports, it is the work plan of the Economic Wing.

It is anticipated that approximately two thirds of the EW resources will be devoted to activities specified in the AWP and one third of the EW resources will be devoted to special staff requests from the Secretary, Additional Secretary and other MINFA officials. However, it is believed that in-as-much as the PC-1 authorizing the EW specified that the mission of the EW encompass the kinds of statistical, economic research and policy analysis activities scheduled in the AWP, most staff requests will coincide with the assigned mission of the EW and the on-going work plan activities will make it easier to provide MINFA officials with high quality economic intelligence in response to special requests. Further such special requests will provide additional insight into the kinds of statistical, economic research and policy analysis activities the EW should include in future work plans.

This version of the AWP was finalized after an extensive EW planning retreat held on August 1-3, 1991.

2.0. OBJECTIVES:

The contract for the EPA project states, "The main objective of the Economic and Policy Analysis (EPA) Phase II is to provide technical assistance, training and commodities in order to increase the capabilities of the Economic Wing to accomplish its mission as stated in the Merger Plan. "Specific objectives of this contract are: (1) Assist the Ministry of Food, Agriculture and Cooperatives (MINFA) to strengthen and streamline the newly established Economic Wing (EW) so that it is fully functional and can stand on its own reputation, (2) to help the EW to identify and clarify policy issues, to analyze those issues and to prepare and publish written reports containing the analysis and recommendations and assist in formulating policy reform packages, (3) to assist in the organizational development of the EW, which includes integrating the Economic Wing into the GOP's system of policy formation and decision making and (4) to assist GOP in direct analysis of policy options for key issues with major emphasis on ASSP policy concerns."

The institutional background of the Economic Wing (EW) and of the Economic and Policy Analysis (EPA) Project is summarized in the Appendix.

The main EPA objective can be restated as follows, "By the completion of EPA Phase II, the EW will be a sustainable policy analysis unit within MINFA, providing MINFA officials and other users of agricultural policy analysis with objective information on the impact of alternative policy options on the performance of both Pakistan's food and fiber system and Pakistan's economic development program. The information provided by the EW must be well enough regarded by MINFA officials to be routinely utilized in their decision making process."

The two EPA expatriate long term advisors have been involved with the project for nine months as of July, 1991 (including a three months evacuation). their experience leads to two working objectives, spinoffs from the specific objectives listed above, which must be achieved: 1.) The EW organizational and staff capacity must be able to anticipate and analyze relevant policy issues and to present findings in a form that MINFA officials can readily incorporate into their policy deliberations within MINFA and in their dealings with other GOP organizations; and 2.) MINFA officials must develop a commendatory opinion of the capacity of the EW to provide them with useful information on policy options.

2.1. The 1990-91 Work Plan

The Annual Work Plan - 1990-91 (revised) stated, "This work plan provides a tentative list of activities designed to accomplish EPA objectives over the three years project life". Details of the

policy background, objectives, procedures, expected outputs, time frame, staff responsibilities, performance targets, and EPA project deliverables for each activity were identified. Priorities were assigned to each activity with urgent priorities assigned to activities expected to be completed in the 1990-91 project year.

The EPA project work plan was developed and is being maintained in a computerized information file that facilitates preparation, periodic monitoring, evaluation and revision; and reporting and analyzing work plan activities. Figure 1 contains the information that is developed, stored and retrievable according to desired format for each activity. Information from these activity files can be retrieved in a variety of formats such as those contained in the tables in the remainder of this work plan.

Table 1 lists the original work plan activities specified in the 1990-91 EPA AWP for the life of the project.^{1/} This, 1991-92 AWP for the EW continues the practice established in 1990-91 of looking at the expected work plan for the three year life of the EPA project with emphasis on the current project year.

2.2. Changes for the 1991-92 Work Plan

Some significant changes have been made in the 1991-92 AWP in order to make it a more effective planning document in terms of achieving the two operational objectives presented above.

2.2.1. Limited Staff and Resources

In the process of assigning and re-assigning EW staff in conjunction with the return of 12 staff members who have completed a nine month USAID sponsored non degree training program in economics at Quaid-e-Azam University, it became clear that the EW does not have adequate staff to work effectively on all of the activities presented in the 1990-91 Work Plan presented in Table 1. Activities in Table 1 not included in the 1991-92 EW/EPA AWP due to limited EW resources are presented in Table 2. It would be desirable to work on the activities listed in Table 2 if adequate EW staff and resources were available.

It is the hope of the two EPA expatriate advisors that all of these activities can be implemented at a later date by the EW.

^{1/} Tables are placed at the end of the text.

Figure 1. Economic Wing Information System Work Plan
Activity File

=====
Directory - WORKPLAN File-ACTIVITY
=====

I. Identification

ACT. NO.: DIRECTORATE: SEC.: PRIORITY: DATE:
STRATEGY: TITLE OR DESCRIPTION:
=====

II. Resources

EW STAFF:
SHORT TERM PAKISTANI STAFF (STPS): PERSON MONTHS STPS:
SHORT TERM EXPATRIATE STAFF (STES): PERSON MONTHS STES:
PROGRAM CONSTRAINT (None, EW Resources, or GOP initiative):
=====

III. Coordination

COORDINATOR: ADVISOR:
COOPERATING EW - DIRECTORATES/SECTIONS/KEY PERSONS:
COOPERATING ORGANIZATIONS AND/OR PROJECTS/KEY PER
=====

IV. Program Detail

POLICY SITUATION AND/OR EW BACKGROUND: ACTIVITY OBJECTIVE(S):

Expected Outputs

ON THE JOB TRAINING: STUDY TOURS: SHORT COURSES:
OTHER TRAINING (Explain): TOTAL TRAINING:
PROTOTYPE REPORTS: SOURCE OF PROTOTYPE REPORTS: OTHER OUTPUTS:

Time Frame

START DATE: COMPLETION DATE:
TIME LINE (Key-W=Working;P=Performance Target;D=Deliverable)
YEAR/MO.-90/JASOND/91/JFMAMJJASOND/92/JFMAMJJASOND/93/JFMAMJ
Plan:
TDY:
WORK TO BE UNDERWAY OR COMPLETED THIS QUARTER OR NEXT?:
=====

V. EPA Deliverables (D)

1990-91 D: 1991-92 D: 1992-93 D:
=====

VI. Monitoring and Evaluation

PERFORMANCE TARGETS (PT)
1990-91 PT: 1991-92 PT: 1992-93 PT:

QUARTERLY SUMMARY (Progress this quarter or plans next quarter

EVALUATION OF OUTPUTS RELATIVE TO EXPECTATIONS:
=====

Activities listed in Table 2 are not included in the 1991-92 AWP for two reasons. First, some of the activities can be implemented more effectively at later stages in the organizational development of the EW. The first six activities in Table 2 fall in this category. Second, some activities were excluded from the 1991-92 EW/EPA AWP because of either the competition from other activities for scarce EW resources or the perceived lack of adequate secondary information.

For example, no work is planned on livestock situation reports in the 1991-92 EW/EPA AWP because of the lack of good secondary data series even though well done livestock situation reports would produce important information for GOP policy makers. Because of inadequate secondary data, little progress could be achieved in the development of good livestock situation reports during the next two years, much staff time would be required in such an effort, and the opportunity cost of this staff time would be considerable.

In the case of the agricultural trade policy activity, the decision to exclude the activity was made with real reluctance. There is little doubt that the information such an activity could produce for MINFA officials will eventually be perceived as valuable, but there is no evidence at present of a strong demand within MINFA for such information. While a fair amount of secondary data on trade is available, the start-up effort required for such an activity to be effective would be substantial and, therefore, the opportunity cost in terms of staff time would be considerable.

In addition to the activities listed in table 2, two other activities were eliminated from the formal work plan:

- o Activity 09 - EW Work Plan Monitoring, and
- o Activity 14 - Peer Review Procedures - Quality Control.

These activities will be conducted in an informal manner through the normal EW managerial process.

2.2.2. Achieving Objectives

Original EPA work plan activities remaining in the 1991-92 AWP are listed in table 3 along with some summary GOP or EW background and objectives. New numbers have been assigned to the activities to indicate the responsible directorate.

When the activities listed in Table 3 are completed in an effective manner, the basic objectives of EPA will be achieved. However, the simple completion of these activities must not be regarded as an end; completion instead provides a means of

achieving both the specific objectives and the two working objectives listed above. The work must be conducted with maximum involvement of EW staff so that they will be fully capable of continuing and expanding such work in the future. The purpose of completing the activities in the work plan must not be just to complete a report, but rather to significantly enhance the ability of EW staff to complete such work and to present the work to MINFA officials in such a manner that the information will be incorporated into the GOP policy making and review process.

2.2.3. A Change in Emphasis

While some progress has been made in accomplishing the operational objectives of EPA, the progress was judged to be not completely satisfactory given the main objective of achieving independent EW sustainability by June, 1993. To date, some outcomes of joint EW/EPA work have been unencouraging, but some outcomes are less favorable than had been hoped for in September, 1990.

Most importantly, based on the experiences of working with the EW staff, the expatriate advisors are convinced that the EW staff is capable of providing MINFA officials with relevant and objective policy related information and that with proper training, this information will be presented in forms that MINFA officials find valuable. In other words, the main objective of EPA Phase II appears to be feasible.

The process of organizational development, however, has been time consuming and while definite progress has been accomplished, the pace must be picked up if the main objective of EPA Phase II is to be achieved by June, 1993. Based on this conclusion, it became important to change the 1991-92 AWP so that it would become a more effective means of accomplishing the project's main objective.

As a result, the 1991-92 Work Plan is designed to concentrate on a narrower range of activities than was originally envisaged and greater emphasis will be placed on developing outputs in the form which are regarded as immediately useful by MINFA officials. The purpose of this strategy is not just to concentrate on outputs in the form of reports, but to exploit the value of EW staff.

As indicated above, information identified in Figure 1 is maintained in the work plan file for each activity. It is often useful to view such information according to a particular dimension. Major dimensions of the EPA work include: EPA project strategy, priorities, responsibilities, coordination, temporary staff, prototype reports, training, time frame, current year priorities, and monitoring and evaluation. These dimensions provide the structure of the remaining part of this work plan.

3.0. STRATEGIES AND ACTIVITY PRIORITIES

Briefly, the EPA objective is to assist the Director General of the EW and his Directors and Deputy Directors in managing the EW so that it becomes a viable and productive organization, cooperating with other GOP and private sector organizations in providing the MINFA with the best possible economic intelligence to guide agricultural policy dialogue and decision making in Pakistan. In working toward this objective, the EPA project strives to: enhance the operational capabilities existing in EW units; utilize many of the economic research and policy analysis activities and publications completed by the EAN project as prototypes to guide the institutionalization of similar activities and publications in the EW; complete some of the incomplete activities initiated under the EAN project such as estimating agricultural income; and conduct some new economic research and policy analysis activities to provide prototype procedures and publications to round out the EW capabilities.

The GOP institutional setting, EPA project history, EW mission, objectives, resource constraints, and contractual requirements call for a three dimensional EPA project strategy: 1.) Assist in strengthening the organizational development of the EW; 2.) Enhance the operational capacity of the EW to embrace more of its mandated mission; and 3.) Insure the continued flow of operational products of the EW. Table 4 lists the 1991-92 activity priorities and the primary project strategy towards which they contribute.

The three priorities are: 1.) urgent, 2.) important, and 3.) deferable. Activities classified as "deferable" are significant activities but they can be dealt with only after work on other urgent and important activities is completed.

3.1. Operational Products

The three directorates making up the new EW have a varied history and operational capability. For example, while the DAP is a new organization, bringing together a new staff and no operational products, the DAS is a well established unit with considerable operational capability and publication record. It has for example an established computerized data storage, processing, and dissemination system called the Agricultural Management Information System (AMIS), developed under sponsorship of the FAO, and some well established statistical publications including Agricultural Statistics of Pakistan and Crop Statistics of Pakistan, both published annually. The DER, formerly the Planning Unit, has some operational capability to respond to staff requests by higher MINFAC officials. As we emphasize the development of new economic research and policy analysis capability within the EW, there could be a tendency to ignore the existing routine

capabilities and let them deteriorate or to continue to act as a Planning Unit, responding as best they can to special requests from MINFAC officials. Thus, the first EPA project strategy is to assist the EW in maintaining the capacity to routinely generate, improve and keep its current operational products relevant. Activity 58, "Policy log" is designed to assist in this effort by documenting the recent history of MINFAC special requests for information from the EW and to estimate the proportion of EW staff resources utilized in such unplanned efforts. Combined with activity 2, "EW work plan", this will enable EW management to determine how staff resources are being used and what activities should be planned are routine work and what percent of EW resources should be held in reserve for unplanned by important requests. This will help the EW to achieve and maintain a difficult balance between responding efficiently to unplanned requests and conducting more in depth economic research and policy analysis activities to improve the quantity and quality of economic intelligence available to support GOP policy in food and agriculture.

3.2. Capacity Enhancement

The EAN project was very successful at establishing a network of several hundred people concerned about agricultural policy in Pakistan, in conducting many useful studies, in training agricultural economists in economic research and policy analysis, and in contributing to the dialogue and environment conducive to the formation of the EW. In its earlier setting, the DAS successfully established a viable statistical capability and the DER has a record of staff analysis capability. Now the pressing task is to solidify the existence and organizational structure of the EW and to bring about a balanced capacity of the EW to supply the GOP and the private sector with accurate, policy relevant information on a timely and continuing basis. This requires the steady enhancement of the EW's capacity to routinely anticipate policy issues, assemble data, conduct economic research and policy analysis, and to disseminate the information in a timely and efficient manner and form within the scope of current GOP concerns. Thus, capacity enhancement is the primary strategy of most of the EPA activities delineated in Table 4.

3.3. Organizational Development

Groups of individuals performing specific tasks are combined into larger organizations for several reasons, not least of which is to realize a complementary relationship such that the combined product is greater than what it would have been with the individual units functioning independently. Yet, there is also a natural tendency for individuals and units to want to operate independently. This latter tendency is especially strong in a new organization such as the EW where individual units have different histories and capabilities. Thus, considerable effort is required

to plan and implement activities so as to capture the complementary potential among the individuals and smaller units contributing to the whole and to insure that those contributing understand and appreciate their complementary relationship and will thus strive to expand and enrich their team efforts. Further, such team building must reach beyond units within the EW, extending to other GOP and private sector organizations to encourage consensus building in policy dialogue. This need for EW wide teamwork however will be enhanced by the basic "information system nature" nature of economic research and policy analysis in which policy questions must be identified and clearly communicated between the decision maker and policy analyst, a conceptual basis for study outlined, relevant data assembled, analysis performed, and results disseminated to the policy decision makers in clear and practical terms. Such a procedure requires the input of all three EW directorates and continuous dialogue with MINFAC policy makers. Table 5 indicates cooperating EW Directorates and Sections as well as organizations outside the EW that should be included in extended team efforts for each planned activity.

4.0. POLICY SETTING AND PROGRAM PRIORITIES

4.1. Introduction

Pakistan is in the process of implementing its Seventh Mid-Term Plan (1988-93) and second Perspective Plan (1988-2003) to achieve national goals of (a) poverty alleviation (b) increasing opportunities for employment (c) social development (d) towards increasing self-reliance and (e) improving its technological base. Towards this end, the role of agriculture as a driving force of the national economy needs no emphasis. It is the major source of labor for industrial sectors, capital for new business, revenue for the federal and provincial governments and exports cotton and other commodities to balance the imports required for other developing sectors. The total agricultural economy accounts for a little less than half of the gross national products; farming alone accounts for half of the agricultural economy while agriculture business making up for the other half. Thus agricultural development means general economic development.

Pakistan's agricultural economy has entered a new and complex developmental phase. It requires continuous in depth study of policies and programs if Pakistan is to realize the potential of its agriculture to contribute to the achievement of its stated national goals. The government has moved progressively to introduce a host of policies to promote the agricultural sector and make it more competitive and world trade oriented. Such policies include the gradual withdrawal of subsidies, aligning the output prices with border prices, striking a reasonable relationship between prices received and prices paid by farmers, and trading in world markets according to comparative advantage. However, much

remains to be done. Continuous evaluation/review and monitoring of agricultural policies and programs on a regular basis is needed to identify gaps and to develop alternative ideas which will make the policies and programs more effective. More and more, policy oriented research and analytical work is needed to ensure the rational and efficient use of the country's resources to achieve food security and sustainable economic growth. The transition to a more industrial and trade oriented agriculture requires a thorough insight and ability to promptly identify, analyze and resolve emerging problems. This will require the kind of agricultural statistical, economic research and policy analysis capability being developed by the EW.

During 1990-91, the first EPA project year, 12 EW officers attended a nine month Quaid-E-Azam University training program, three other officers attended a three month UNDP/FAO sponsored statistical training program in the Philippines, the EW suffered a severe office space problem at its Shaheed-E- Millatt location, there were only a handful of computers available in the EW, it was two months into the project year before the two EPA long term advisors arrived in Islamabad, and the long term advisors were then evacuated almost three months during the Gulf War. And considering that the EW was a newly formed organization with many of its staff just reassigned from duty as field investigators, the EW was in many respects an organization in name only. Thus, during the first year of the EPA project, both the Economic Wing and the project operated with about 50 percent of its resources and under severe space, computer, staff capability, and organizational constraints.

For the above reasons, during the first abbreviated EPA project year, emphasis was placed on strengthening the Economic Wing management, enhancing staff capability, solving the office space problem, and obtaining computers.

Never-the-less, significant progress was made in establishing research programs in marketing margins, the marketing bill and farm income. A Commodity situation and outlook program was established with the completion of the first Wheat Situation and Outlook Report for Pakistan, and the computerized agricultural data system was completed and became fully operational for purposes of compiling and publishing statistical documents. In addition an EW capability to estimate and analyze government subsidies to agriculture in the form of consumer and producer subsidies equivalents was established, and the EW obtained and initiated the capability to maintain and use the Pakistan Agricultural Sector Model (PASM).

In all of these managerial and technical fields, the primary mode of work was for either one of the long term EPA advisors or a temporary expatriate advisor to provide on-the-training to a few EW officers in each area as the EW capability was initiated. In total, some 25 participant months of on-the-job training was provided to the EW by the EPA project.

Perhaps the 1990-91 highlight for the EW was it's leadership role in formulating the GOP's new Agricultural Policy, the publication of which has established the EW as a central player in pakistan agricultural policy analysis.

EW priorities during the 1991-92 EPA project year will include completing the EW Management Information System, completing a least one full cycle in the economic research programs of marketing margins and marketing bill, farm income, and input/output analysis; establishing a fuller commodity situation and outlook program for most major and some minor crops; documenting and using the PASM for analysis of some significant wheat policy concerns; and extending the operational use of the computerized agricultural data system to supporting the above economic research and policy analysis programs. In all of this work, the primary approach will be for the long term and TDY EPA advisors to provide small teams of EW officers on-the-job training in establishing or strengthening the EW capability in these important areas of agricultural statistics, economic research and agricultural policy analysis.

4.2. Management Information System

The EW job descriptions are being completed. This will complete a series of activities including the organization, purpose, and staffing plan of the EW. In addition, when the training and procurement plans are completed in the next quarter, a rather advanced but practical EW management information system will be complete.

Thus, a major, inter-related set of activities designed to provide effective organization, purpose and management for the EW are almost complete. The last two years of EPA should now be able to build on the organization, staff and managerial base of the EW to provide a substantial institutional GOP capability of statistics, economic research and policy analysis.

The regular schedule of meetings for the Heads of directorates and Economic Wing Professional staff will be followed. The idea is to develop an Economic Wing wide understanding of the Economic Wings mission, the role of each directorate and section, and the duties of each professional staff member in pursuing the mission, a specific set of priority work activities to be completed over the next year, and have a management system that will continuously monitor, evaluate, and make mid-course corrections in EW performance so that the credibility of the Economic Wing, established during 1990-91, will be significantly strengthened during 1991-92.

EPA efforts to strengthen the EW management and performance will culminate in an EW planning session in May, 1992. At this retreat, activities of the year will be reviewed and the EW work

plan for 1992-93 will be drafted. Hopefully a talk by the existing or former Administrator of the Economic Research Service, U. S. Department of Agriculture, focusing on the difficulties of planning and implementing a sound program of economic research and policy analysis in a National government setting will keynote the proceedings.

4.3. Enhancing Staff Capability

With the newly acquired computers provided by USAID, the inventory of computer equipment will be updated and staff computer skills will be inventoried. These inventories will be compared with estimates of computer equipment, staff computer skills, statistical, economic research and policy analysis skills needed to accomplish the Economic Wing mission. The computer plan will then be updated and an EW training program will be developed and initiated with emphasis on computer skills and technical areas of high priority to the EW. On the job training in technical areas will be provided each EW staff member by EPA advisors and short term expatriate and Pakistani staff in team efforts to develop prototype documents displaying the EW first generation capability to provide the MINFA with statistical, economic research and policy analysis relative to food and agricultural issues on the GOP agenda. In addition to on-the-job training, the plan is for EPA to provide every EW officer with short course training in computer skills, and in the primary statistics, economic research, and policy analysis capabilities of the EW. These areas include the economics of farm production, commodity situation and outlook, marketing margins and marketing bill estimates, farm income, commodity price policy, agricultural sector analysis, aggregate measures of support to agriculture, and input output linkages between farm production, agribusiness, the general economy, and world agricultural trade. Some short course training will be accomplished by TDY advisors in Islamabad and some will be accomplished through study tours to Colorado State University and Washington D.C. In addition, two or three EW officers will be recommended for USAID degree training abroad.

Table 6 summarizes the EPA training plans by work plan activity. For reasons outlined above, only 25 participant months of training were accomplished during the abbreviated 1990-91 project year. In total, of the 180 participant months of training to be provided under the EPA project, 25 are not yet allocated to specific work plan activities.

4.4. Agricultural Data System

The Agricultural Management Information System (AMIS) is the EW's "state of the arts" agricultural data system. Operating in a local area network (LAN) environment, AMIS was developed over

the last several years via a UNDP/FAO funded GOP project in the EW's Directorate of Agricultural Statistics (DAS). DAS uses the AMIS very effectively for assembling, checking, formatting and publishing agricultural data annually in Agricultural Statistics of Pakistan and other GOP agricultural statistical publications. Both AMIS and the resulting statistical publications represent a statistical capability of which any country would be proud. But the AMIS LAN is limited to the DAS and to data, with the exception of the wheat forecasting activity, AMIS has not been applied in the analytical dimensions required for economic research and policy analysis.

Thus, beginning in 1991-92, the AMIS project, which is expected to be extended beyond its October, 1991 completion date, and EPA will cooperate within the EW to extend the AMIS to the Directorates of Economic Research and Agricultural Policy analysis. EPA and AMIS technical advisors will work with the various sections of DER and DAP. Activities leading to the development of commodity supply and utilization accounts, farm enterprise costs and returns, farm inputs, production and productivity indexes, farm income, marketing margins and marketing bill estimates, aggregate measures of GOP support to agriculture and input/output tables initially acquired their data by hand compilation of work sheets. Such activities will now be interfaced with AMIS, first deriving their basic data from AMIS and eventually to construct their analytical statistics in the context of AMIS. Then AMIS will more truly become an agricultural management information system. Although such work will require several years to complete, a good beginning should be possible in 1991-92.

4.5. Commodity situation and Outlook Program

The commodity situation and outlook program was initiated during 1990-91 with the development of supply and utilization accounts and the first EW "Wheat Situation and Outlook Report for Pakistan. This activity utilized the wheat area, yield and production forecasting capability already operational in the Directorate of Statistics.

Bill Spencer of Colorado State University, serving as technical advisor for this work developed a good working relationship with the Commodity Situation Section (COSI) of the Directorate of Economic Research (DER), providing the COSI section with 3.0 participant months of on-the job training in the development of wheat situation and outlook reports, in addition to one PM month of OJT training provided earlier by EPA Advisor Leroy Quance in helping the COSI section develop the wheat supply and utilization accounts.

Bill Spencer will return for two additional TDY missions during 1991-92 to assist the COSI section in developing prototype

commodity situation reports for rice and sugarcane, in addition to a second 1991 situation and outlook report for wheat emphasizing supply management for the 1991-92 wheat marketing year.

R. Shafiq-ur-Rehman, a Pakistani EW technical advisor, will assist the COSI staff in developing a prototype SOR for Onions during the first half of 1991-92.

The above technical assistance should enable the COSI section staff to extend the EW SOR capability to repeated annual cycles for wheat, rice and onions and to additional major and minor crops with only minor assistance from further TDY or long term EPA Advisors.

4.6. Government Support for Agriculture

With initial technical assistance from Gary Ender of USAID, Pakistan, and EPA Chief of Party Dick McConnen, M. Ibrar of the Directorate of Agricultural Policy (DAP), developed estimates of Aggregate Measures of GOP support for agriculture as MINFA input into the GOP GATT participation. An EW report on this activity will be completed in early 1991-92 and such estimates will be updated annually with only minor EPA advisory input. In addition, the AMSS will represent GOP policy instruments in the DAP's agricultural sector analysis activity.

4.7. Farm Income Estimates

The aggregate farm income estimates activity progressed on schedule during 1990-91 under the technical advice of Don Lybecker, Colorado State University. A research report will be completed in 1991-92 and updated annually with increasingly less EPA technical support.

One major task necessary for the continued success of this critical research effort is to develop MINFA and FBS wide cooperation in establishing a dependable, single source of official GOP estimates of the cost of production for crop and livestock commodities. Thus, significant EW effort in 1991-92 will be devoted to encouraging a cooperative effort between the Federal Bureau of Statistics, the Pakistan Agricultural Research Council, the Agricultural Price Commission, Provincial Agricultural Departments and other relevant organizations to conceptualize, define operational concepts and collect basic data on the cost of producing agricultural commodities under different farm size/technology regimes. Such farm cost data provides the basic building blocks not only for the farm income work but also for the agricultural sector analysis and subsequent agricultural price policy analysis.

4.8. Pakistan Agricultural Sector Model

An Economic Wing version of the Pakistan Agricultural Sector Model (PASM) developed under the GOP/USAID sponsored Analysis of Corporate Sector Constraints in Agriculture (ACSCA) project has been transferred to the EW and the staff of DAP's Aggregate Analysis (AGAN) section has received initial training (3.0 PMS) in linear programming and on the structure of PASM from Steve Davies, the leader of the PASM development team and Leroy Quance, EPA Advisor.

EW training on Agricultural sector and price policy analysis using PASM and other analytical tools will continue throughout 1991-92, a PASM User's Manual will be developed, and agricultural sector analysis initiated.

PASM is very comprehensive in its utilization of agricultural data and representation of agricultural production, processing, utilization, and resulting economic conditions. It will be carefully reviewed and, where necessary, revised not only to make it fully consistent with the DER, FAIN section's farm income work but also with the Agribusiness section's (AGBU) marketing margins estimates and the COSI section's commodity supply and utilization accounts. The DAP estimates of aggregate measures of support (AMSS) for agriculture will be made explicit in the model to serve as GOP policy instruments and accounting rows will be added where necessary to provide adequate GOP policy performance indicators. Comparative analysis of PASM scenarios will provide estimates of the direct farm production sector and consumer level impacts of GOP policy changes. In addition, the AGAN section will experiment with using the I/O model derived multipliers to estimate inter-sector and aggregate economy impacts of changes in GOP agricultural policy. Thus, the AGAN section use of PASM will provide an integrated perspective to most of the major EW statistical, economic research, and policy analysis efforts.

Both the PASM and Pakistan Input Output Model will be made available to support work of the newly formed Agribusiness Cell in the GOP.

4.9. Implementation of the National Agricultural Policy

Following the EW's strong role in formulation of the GOP's National Agricultural Policy, it has been given a strong role in the NAP Implementation Cell. A considerable portion of the DAP staff resources will likely be devoted to this essential effort. To facilitate this effort, the DAP will play a strong coordinating role in the deliberations of the Advisory Committee on Agricultural Policy (activity DP06) and will direct the annual development of the Agricultural Review and Policy Implications publication (activity DP02) to include a summary of the GOP efforts to

implement its NAP, and to include economic impact analyses as reflected in various agricultural statistics, economic research, and agricultural policy analysis outputs of the EW. One specific effort will be to develop a specific set of statistical GOP agricultural policy performance indicators.

5.0. TEMPORARY STAFF

Table 8 lists the temporary expatriate and Table 9 the temporary Pakistani professional staff that are currently planned to assist the EW. Tables 8 and 9 indicate some over-programming of the 30 person months short term expatriate and 15 person months Pakistani time allocated in the EPA contract. This over-programming is in anticipation of some slippage in some activity implementation. Specific terms of references for each such TDY mission will be developed as the activity period approaches and each such terms of reference will specify that the short term staff member is to work closely with a counterpart or counterparts in a team approach to enhancing EW capability; is to provide such counterparts with a specified number of PMs of on-the-job training to enable the counterparts to continue the activity beyond the EPA project life, and usually to generate a first generation EW statistical, economic research, or policy analysis capability in the form of prototype reports.

6.0. PROTOTYPE REPORTS

The very useful practice of providing prototypes of expected EW publications begun under the EAN project has been continued under the EPA project. Table 10 lists 18 prototype reports expected to be utilized within the EW during the EPA project life. Eight of these prototype reports have already been produced as an operational EW statistical publication, available from the EAN project, available from the FAO sponsored AMIS project or were produced during 1990-91 by EPA working with the EW. The remaining 10 prototype reports will be generated by the EW with EPA project assistance during 1991-93.

The following five prototype reports to be developed by the EW with EPA assistance will be completed during 1990-91:

- o Impact of Changes in the Agricultural Sector on the Rest of the Pakistan Economy and Individual Sectors
- o Wheat Situation and Outlook Report: 1991-92 marketing Year Prospects
- o Prototype Rice Situation and Outlook Report for Pakistan

- o Prototype Onions Situation and Outlook Report for Pakistan
- o Prototype Sugar Cane Situation and Outlook Report for Pakistan
- o Aggregate Measures of GOP support to Food and Agriculture
- o Wheat Marketing Bill Report
- o Agricultural Trade of Pakistan
- o Documentation of the Pakistan Agricultural Sector Model (PASM)

7.0. PROJECT DELIVERABLES AND PERFORMANCE TARGETS

EPA project deliverables and performance targets for all activities to be completed in 1991-92 are listed in Table 12. Many other activities will be initiated in 1990-91 as indicated in the EPA life of project time frame contained in Table 11 but will continue into later project years.

8.0. MONITORING AND EVALUATION

In addition to the activity time frame contained in Table 11, and performance targets listed in Table 11, the EW Management Information System contains two items concerning monitoring and evaluating project progress, problems and accomplishments:

- o Progress Summary; and
- o Evaluation of Completed outputs relative to Expectations.

Information relative to the above two items will be developed for each activity in process at the close of each month, summarized in each successive EPA Quarterly Report, and used as a basis for the development and mid-year revision of each successive annual EW/EPA work plan.

Table 1. EPA Life of Project Activities and Advisor Assignments

Act.	Description	Advisor
01	Annual Work plan (AWP)	McConnen, Quance
02	Purpose statements	McConnen, Quance
03	Job descriptions	McConnen, Quance
04	Training Plan	Quance
05	Computer operations training	McConnen, Lodhi
06	Seminars	Quance
07	Economic Wing Newsletter	McConnen
08	Information dissemination policy	McConnen
09	Monitoring program	Quance
10	EW strategic planning	McConnen
11	Working Group on Agricultural Policy	McConnen
12	Technical editing capacity	McConnen
13	Computer plan	Quance, Manuel
14	Establish peer review procedures-quality control	McConnen
15	User feedback for EW reports and analyses	McConnen
16	Literature documentation system	Quance
17	Library acquisitions	Quance

(Continued)

Table 1. EPA Life of Project Activities and Advisor Assignments (Continued)

Act.	Description	Advisor
18	Agricultural prices briefing paper	McConnen
19	Procurement plan (PLA Acct.)	McConnen
20	Policy Log	McConnen
21	Agricultural data system	Manuel, Quance
22	Agricultural statistics of Pakistan	Quance
23	Agricultural chart book	Quance
24	Trade Data	Quance
25	Wheat forecast model	Manuel, Quance
26	Additional commodity forecasting models	Quance, Manuel
27	Wheat supply and utilization accounts	McConnen
28	Wheat situation and outlook report	McConnen
29	Plan for situation reports on remaining major crops	McConnen
30	Situation reports for minor crops	McConnen
31	Livestock situation	McConnen
32	Farm income estimates	McConnen
33	Contracts for farm budget coefficient work	McConnen
34	Farm budget coefficients	McConnen
35	Agricultural credit	McConnen

(Continued)

Table 1. EPA Life of Project Activities and Advisor Assignments (Continued)

Act.	Description	Advisor
36	Agribusiness data	McConnen
37	Margins and marketing costs estimates	McConnen
38	Update I/O model	McConnen
39	Farm and agribusiness production indexes	McConnen
40	EW liaison with MINFA agribusiness cell	McConnen
41	Inventory of Pakistan Agricultural Policy Models	Quance
42	Agricultural policy project compendium	Quance
43	Agricultural policy review	McConnen
44	Producer and Consumer Subsidies	McConnen
45	Agricultural trade policy	McConnen
46	Wheat policy study	McConnen
47	Wheat seminar	McConnen
48	Conceptualize the food and fiber sector	Quance
49	Fertilizer policy Study	McConnen
50	Agricultural Sector Adjustment Potential	Quance
51	Agriculture In Pakistan	McConnen
52	Technical assistance plan	McConnen
53	EPA Quarterly Reports	McConnen
54	EPA End of Project Report	McConnen

Table 2. Activities Excluded From the 1991-92 AWP Because of Limited EW Staff

Activity	Description	GOP Policy or EW Background	Objectives
07	Newsletter	Complementary to developing an institutionalized capability to collect and process relevant data and conduct appropriate economic research and policy analysis in the EW is to disseminate the resulting information to a broad professional audience in the pursuit of National awareness of, and dialogue on important food and agricultural issues. The EAN project was especially successful in this effort with its economic analysis membership drive and the publication of the bi-monthly Econogram. While funds have not been explicitly provided in the EPA project for the Econogram, it is essential for the EW to "get the word out" on important developments in agricultural policy and on the kind of useful information available from the EW and other sources.	Develop a means of disseminating information about the EW and other GOP and private sector concerns, data, economic research, and policy analysis relevant to a continuing national dialogue and action on food and agricultural policy.
08	Information Dissemination Policy	The EW will be developing and disseminating a wide range of economic intelligence to MINFAC and the broader food and agricultural community. Such dissemination activity is costly, in terms of both financial resources and staff time. Further, as the EW gains proficiency at developing such information as commodity situation and outlook reports, the information will have serious economic implications for commodity markets and prices. Premature release or other types of poor information dissemination management could have serious negative consequences. Thus, a carefully developed and implemented information dissemination policy is necessary.	Develop an EW information dissemination policy that will 1. serve the GOPs and public needs and rights to information generated by GOP agencies, 2. insure responsible dissemination of sensitive information, and maximize the productivity of limited EW resources devoted to information dissemination.
12	Technical Editing Capacity	The EW is planning an expanded publications program. It takes a great deal of time and effort to bring a document up to publication quality even after all of the statistical, economic research and/or policy analysis and drafting are complete. Thus, the EW needs to hire a full time editor and secretary to effectively utilize the computer word processing and desk top publishing facilities either existing or planned for the EW.	Establish an editorial and publication preparation unit in the EW to work with manuscript authors to efficiently edit and prepare camera ready copies of all EW publications.
15	User Feedback for Reports and Briefings	The EW must generate and disseminate relevant, timely, and accurate information to its clientele.	Develop a simple survey to receive feedback from users of EW publications for the purpose of improving the information collected, developed and disseminated by the EW.

(Continued)

Table 2. Activities Excluded From the 1991-92 AWP Because of Limited EW Staff (Continued)

Activity	Description	GOP Policy or EW Background	Objectives
16	Literature Documentation System	To be a successful policy analyst, an EW staff member must read, read, read; think, think, think; and write, write, write. To facilitate this process, the EW needs a small but well managed and documented library containing selected economic and policy related books and other documents.	Develop a computer based literature documentation system to facilitate efficient organization and management of an EW library and to facilitate literature searches for EW research and policy analysis activities.
17	Library Acquisitions	To be a successful policy analyst: an EW staff member must read, read, read; think, think, think; and write, write, write. To facilitate this process, EW needs a small library with key economic texts and other documents relevant to food and agriculture in Pakistan. Each year, the EW should add a few key books and documents to its Library.	Assist the EW in establishing a library at 33 Blue and in routinely evaluating its literature needs and acquiring a the select number of books and other relevant documents. In the last EPA project year, transfer the library to the permanent EW building.
31	Livestock Situation	As economic development progresses and per capita incomes increase, the demand for livestock commodities and livestock feed will increase. This will intensify the demand for limited irrigation water, fertilizer, and other farm inputs but will create a demand for a growing livestock sector and the complementary transportation, processing and distribution agribusinesses. It may also increase the need to import grain. The GOP needs to have a more complete statistical picture and understanding of the growth and interrelationships occurring in the livestock sector and how this is interacting with the rest of the food, agriculture and agribusiness complex. At present, there is inadequate data available on the livestock production sub-sector.	To appraise the livestock sub-sector with emphasis on current adjustment, future growth prospect, and implications for the capacity of Pakistan to be self-sufficient in food and fiber. Particular attention will be paid to policy questions and the data and analytical needs to provide the GOP with a continuing flow of accurate and relevant economic intelligence to understand the implications of GOP policies and programs for livestock and the interactions between livestock and the rest of the food and fiber sector.
33	Contracts For Farm Budget Coefficients	Under EAN, contracts were established with three Pakistani institutions to provide technical coefficients for the crop budgets used in the budget generator. Each year during the EPA project, new contracts will be let and selective data will be upgraded.	To select budget coefficients that need to be updated and the quality of the estimates improved. To establish contracts with Pakistani institutes which will do this work and to provide for monitoring and evaluation procedures in the contracts. EPA will work with the EW staff to assist in the accomplishment of these objectives.
35	Agricultural Credit Study	As crop and livestock producers purchase a larger share of their inputs, credit becomes more important to the viability of the farm production sector. And often the availability of credit to small farmers is a real impediment to firm growth. The GOP needs good, current information on agricultural credit market and the impact its actions and programs have on the availability and cost of credit to farmers.	Conduct an assessment of agricultural credit in Pakistan with emphasis on policy implications and alternative courses of GOP action.

(Continued)

Table 2. Activities Excluded From the 1991-92 AWP Because of Limited EW Staff (Continued)

Activity	Description	GOP Policy or EW Background	Objectives
40	Inventory of Pakistan Agricultural Policy Models	Many Pakistani agricultural policy needs relate to sector wide issues cutting across commodities, inputs and/or regions. For example, what might be the impact on cotton or rice production, and on aggregate net farm income of a significant increase in the procurement price for wheat. Such a production sector oriented model will complement the input/output model developed by the EAN project. One such model, PAKSIM, developed under EAN, would be especially useful if prices were made endogenous.	Review available models relating to Pakistan agricultural policy issues that have or are being developed by other projects and cooperate with the developers of any such relevant models, obtaining, maintaining; use such models when appropriate to assist EW analysts in analyzing agricultural policy issues; and make prices in the PAKSIM model endogenous.
41	Agricultural Policy Project Compendium	Several national and international donors sponsor agricultural policy related projects in Pakistan. Without careful planning and coordination, such projects can overlap in their coverage and leave important gaps in supplying information important to the GOP. Thus, in order to gain the maximum positive impact from limited project funds, the EW needs to be able to advise MINFAC officials on the coverage of, and relationships between all agricultural policy related projects in Pakistan.	Develop a compendium of donor and GOP sponsored development projects in Pakistan that include significant agricultural policy components or activities.
44	Agricultural Trade Policy	Pakistan is a significant supplier of world cotton and rice import demand, periodically must import wheat; and engages in a significant amount of world trade in other agricultural commodities. It participates in the GATT and increasingly, any country with a major agricultural sector must increasingly consider linkages between its food and agricultural complex and an increasingly interdependent world. Thus, the EW needs to sort out such trade linkages, identify trade policy issues, collect relevant data, conduct appropriate economic research and policy analysis in order to be able to supply appropriate economic intelligence to MINFAC officials and the broader food and agricultural community	Plan and conduct an appropriate program of trade policy analysis within the EW.
48	Fertilizer Policy Study	If Pakistan is to maintain or improve its self reliance position in food and fiber production and utilize agricultural exports as an increasing source of foreign exchange to foster general economic development, then agricultural productivity must continue to increase. One likely unexploited source of productivity gains is the use of chemical fertilizers in combination with improved seeds and cultural practices. The GOP needs a more complete picture of the fertilizer situation and of opportunities to enhance the fertilizer industry in Pakistan.	Conduct an appraisal of the fertilizer industry in Pakistan, including production, imports, prices, actual and potential farm use, and the resulting changes in social costs and returns from alternative policy scenarios impacting fertilizer supply and demand.

Table 3. Activities Included in the 1991-92 Annual Work Plan

Activity	Description	GOP Policy or EW Background	Objectives
DP01	Input/Output Analysis	In the process of economic development, agricultural output becomes a smaller portion of GNP. This is partly due to larger marketable surpluses being generated in farming sector but mainly as a result of larger involvement of agri-business enterprises in production, processing and distribution functions. With increasing global interdependence, this specialization in a greatly expanded agricultural complex results in expansion of international trade. The policies of the Government have a greater influence on this development process. For this, appropriate and accurate data, analysis and understanding of the interactions between the farm production sector, agribusiness, and the general economy are essential prerequisite to initiate policy dialogue and prepare action plans.	Utilizing EW staff, update and fully document the EAN Input/Output model using data from the national accounts and industry data (by sector) on production, value added and employment from the census. In addition, EW staff will receive short course and on-the-job training in using the Input/Output model to 1.) show the impact of changed production, investment, taxation, exports and imports in farming and agricultural business on the rest of the economy; 2.) the impact of price changes on individual sectors; and 3.) use of the Input/Output model in describing the interaction between sectors and the contribution of individual sectors to the general economy.
DP02	Agricultural Review and Policy Implications	Agriculture in Pakistan is more vulnerable to changes in natural, technical, economic, social and political factors. Public and private sectors play an equally vital role in bringing about changes in these factors. It is, therefore, important to identify gaps, constraints and review periodically the agricultural sector as a whole to evaluate sector adjustments and the impact of government policies on aggregate supply response and production capacity.	Develop a description of agriculture in Pakistan by conducting economic assessment of adjustments and conceptualizing the system as a whole in order to specify problems, determine data collection needs, economic research and policy analysis to arrive at various policy implications.
DP03	Aggregate Measures of Government's Support to Agriculture	Under the auspices of the Ministry of Commerce, the GOP is participating in the GATT negotiations. One requirement for participating countries is to estimate aggregate measures of support to agricultural producers. Thus, Secretary, MINFAC, has directed the EW to provide the required AMSs for Pakistan. The international community has for some time used Producer Subsidy Equivalents (PSEs) and Consumer Subsidy Equivalents (CSEs) to estimate national governments' support to their agricultural producers. PSEs are identical in concept to AMSs.	1. Estimate Aggregate Measures of Support (AMSs) for nine major commodities to fulfil the Ministry of Commerce request. 2. Conduct a more thorough analysis, update the data up to 1989-90, estimate both PSEs and CSEs for major agriculture and livestock products, and prepare an EW publication analyzing GOP support to agriculture, and compare such interventions to similar measures in other countries.
DP04	Wheat Policy Study	Wheat is the leading food grain in Pakistan with approximately 80 percent of the cropped area devoted to it in Rabi season in which about 82 percent of the wheat is irrigated. Wheat production is increasing, but still, large quantities of wheat are periodically imported which is a matter of great concern for the country. There is thus an urgent need to undertake a	1.) Synthesize available data, research and policy analysis relative to wheat into a comprehensive analytical report of the wheat sub-sector with emphasis on GOP policy concerns. 2.) Modify the PASM and use it as an analytical framework for wheat sub-sector analysis.

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Table 3. Activities Included in the 1991-92 Annual Work Plan (Continued)

Activity Description	GOP Policy or EW Background	Objectives
	comprehensive analytical review of GOP policy measures in wheat sub-sector including input/output pricing policies and other supportive measures to achieve a sustainable growth in wheat production. The EW can play a vital role in integrating its data, economic research and policy analysis relating to wheat into concise policy briefings.	
DP05	Pakistan Agricultural Sector Model (PASM)	A significant activity of the EW is to monitor adjustments in the agricultural sector and to analyze actual or likely impacts of GOP interventions in the sector. The EAN project developed estimates of enterprise budgets by agricultural regions to estimate farm income and EPA is assisting the EW in furthering that work. In addition, the RONCO Agribusiness Project is using the EAN project data in developing a linear programming model of the agricultural sector. The EW will greatly benefit from the further development and use of the Pakistan Agricultural Sector Model (PASM) in their agricultural adjustment study.
		Using various EAN developed studies such as the farm income budget generator, marketing costs, aggregate measures of government support to agriculture, and the current GOP National Agricultural Policy, develop and implement a one to one and a half year study plan to analyze the adjustment potential in the Pakistan food and agricultural system with emphasis on the impact of GOP policy on food and fiber system adjustments. Conduct on the job training of EW staff in the development, documentation, maintenance and use of appropriate analytical tools such as the PASM in policy analysis of adjustments in the Pakistan food and agricultural system.
DP06	Advisory Committee on Agricultural Policy	With the induction of a new democratic government, a series of new policy reforms are contemplated to transform agriculture into a dynamic and self sustaining sector. For this, more and more economic analysis based on policy oriented research is needed to suggest new reforms and alternative policy options. The new Agricultural Policy also requires in depth economic analysis to translate its recommendations into reality with a view to achieve its goals of social equity, self reliance and export orientation. It is with this background that the Advisory Committee on Agricultural Policy (ACAP) has been constituted under the EPA Project. The ACAP is comprised of seven members and chaired by the Secretary, MINFA. The DG EW is the recording secretary and the membership is comprised of the Chair of APC, Social Science Member of PARC, the DG of FBS, and the heads of a few other relevant GOP agencies.
		The ACAP will advise the Economic Wing on the type of work the EW should undertake and to establish methods of coordination with other GOP organizations. It will help to fix priorities of research studies, review research results and recommend measures to strengthen research capabilities. EPA will assist the EW DG in establishing the agendas for the meetings and in developing action plans that may be called for.
DP07	Implementation of NAP	National economic events, the Gulf crisis, the deficit in the balance of payments, rapid changes in international commodity markets and trade distortions all contributed to the need for a new National agricultural policy. The need for a new policy included the need to identify issues confronting agriculture
		1.) Monitor and review to ensure effective implementation progress of DAP; 2.) Categorize implementation proposals into actionable programs; 3.) Implementation of package of incentives; and 4.) Identification of policy studies based on the recommendations of NAP.

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Table 3. Activities Included in the 1991-92 Annual Work Plan (Continued)

Activity	Description	GOP Policy or EW Background	Objectives
		and suggested policy recommendations for over-coming problems impeding the growth process and thus achieve the enormous potential which this sector offers. Pursuant to the announcement of the policy, an institutional mechanism for its implementation in the form of the Implementation Committee has been established at the Federal level and its counterpart committees in the provinces.	
DR01	Wheat Situation and Outlook	In order for the EW to provide the GOP and private sector with sound and reliable information on the current and prospective wheat supply and utilization situation, model forecasts must be combined with other analysis of historical trends, GOP policy instruments and actions, international market information, and professional knowledge of wheat analysts in the GOP and private sector; and the resulting situation and outlook report disseminated in a timely and responsible manner.	Generate and provide timely and adequate distribution of a wheat situation and outlook report in April and October of each year.
DR02	Situation Reports for other Major Crops	No regular commodity situation reports are produced for the major crops of cotton, rice and sugar. If policies and programs for these crops are to be effective, the EW must supply 1) regular economic intelligence reports on these crops which include the international information which is relevant to Pakistani conditions and 2) have in house staff which is knowledgeable about specific crops and can give reliable briefings to MINFAC officials. Because the involvement of various marketing boards and quasi state enterprises, the EW staff must develop working relationships with the staff of the relevant boards and enterprises.	To 1) develop a schedule and procedures which will permit the publication on annual commodity situation reports (CSRs) for all major crops and 2) develop the staff capable of producing these CSRs and any related special reports that may be called for. EPA will work with the DER to assist in the development of a schedule and procedures and will schedule the short term TA that will be needed to produce CSRs for these major crops. At least one SOR for each of major crop should have been completed by June, 1993.
DR03	Situation and Outlook for Minor Crops	Because of their small but very important role in the Pakistani diet (they have a very inelastic demand), and subjective to weather, disease, and price induced annual variation in supply, some minor crops such as onions, potatoes, and chilies experience wide but opposite fluctuations in price and production from year to year. More timely information and analysis of likely seasonal and annual movements in supplies and prices of some minor crops is required for the private sector and GOP to better manage these important crops.	Develop situation and outlook reports for onions and potatoes and possibly plan for situation and outlook reports for other minor but important crops.
DR04	Farm Income	The Government of Pakistan has regularly reaffirmed its commitment to improving the Economic Welfare of Pakistani farmers in successive Five Year Plans,	To generate/develop: i) farm costs and incomes by size category of farms and regions; ii) farm costs and incomes at provincial and national level; iii) farm

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Table 3. Activities Included in the 1991-92 Annual Work Plan (Continued)

Activity Description	GOP Policy or EW Background	Objectives	
	<p>Annual Economic Surveys and the Report of the National Commission on Agriculture. However, there has been no Economic Analysis Program to provide on annual basis the variation in farm families' incomes by regions and size category of farms to have an objective comparison of the farm population's economic welfare. To ascertain this purpose, the Farm Finance Section will develop farm budget generator and update the same with current data. The generator will provide current estimates of farm costs and incomes for the major agricultural regions of Pakistan. These estimates will also provide the basic information for estimating the economic impact of agricultural production on Pakistan's economy. The estimates analysis will contribute to a better understanding of the demand of Pakistani farmers for agricultural inputs such as seeds, fertilizer and credit.</p>	<p>level economic data; iv) enterprise budgets and farm budgets for various farm categories under different cropping patterns of Pakistan; v) yearly adjustments based on changes in input-output prices, cropping pattern, crop yield and technical input-output relations; and vi) estimates of costs and returns for livestock for incorporation for the whole farm profitability analysis.</p>	
DR05	Farm Budgets	<p>In order to have the ability to estimate the impact of alternative policies and programs on Pakistani farmers, the EW must be capable of estimating the impact on farm incomes and costs. It was for this reason that the first Pakistani farm income and cost estimates were made using farm budget generators which were in turn developed from farm budget coefficients. In order to update and upgrade estimates of impacts, it is necessary to update and upgrade the basic data used in the analysis.</p>	<p>The major objective of this activity is to develop means to provide for the update and upgrade of crop and farm budget coefficients. The initial budget coefficients were provided under EAM by contracts with three institutions associated with Pakistani universities. This activity will establish a procedure for 1) identifying coefficients which need to be updated and upgraded, 2) establishing a priority list of work to be done and 3) establish contracts (as well as contract monitoring procedures) with selected institutions to provide for the new budget coefficients.</p>
DR06	Agricultural Credit Study	<p>As crop and livestock producers purchase a larger share of their inputs, credit becomes more important to the viability of the farm production sector. And often the availability of credit to small farmers is a real impediment to firm growth. The GOP needs good, current information on the agricultural credit market and the impact its actions and programs have on the availability and cost of credit to farmers.</p>	<p>Conduct an assessment of agricultural credit in Pakistan with emphasis on policy implications and alternative courses of GOP action.</p>
DR07	Margins and Marketing Bill Estimates	<p>Agricultural business accounts for about one fourth of the Gross National Product and is a sector as large as farming in Pakistan. In addition, consumers spend, on the average, about one half of their income on food, making it the single largest household expenditure. It is thought that the food marketing bill to the urban consumer makes up as much of</p>	<p>Utilizing EW staff, update the ongoing estimates of national food marketing costs by food group using the methodology established in the April, 1990 report, "Food Marketing Margins: Price Spreads for a Representative Consumer Basket in Pakistan". The updated estimates for 1989/90, 1990/91 and 1991/92 will include estimates of</p>

(Continued)

Table 3. Activities Included in the 1991-92 Annual Work Plan (Continued)

Activity	Description	GOP Policy or EW Background	Objectives
		<p>food expenditures as the farm cost of the raw product. Due to the importance of food expenditures and because agricultural business is a growing sector of the economy, it is important for the EW to institutionalize the capacity to update marketing margins and the estimates of the food marketing bill that were initiated by the EAN project.</p>	<p>the price spreads between retail food prices and the equivalent farm prices multiplied by a representative market basket of food. In addition, more comprehensive market bill estimates (price spreads multiplied by actual year to year consumption), along with component costs for transport, storage, processing, wholesaling and retailing will be developed for wheat, milk and sugar.</p>
DR08	Farm and Agribusiness Inputs, Production and Productivity Index Updates	<p>One of the most important GOP goals is to be self reliant in food and the farming, agribusiness and food complex accounts for a large portion of Pakistan GNP. With population growth in excess of three percent, it's difficult to make gains in per capita income or food supplies. Thus productivity growth is imperative for both economic growth and food security.</p>	<p>Develop EW activities to annually update the farm and agribusiness input, production and productivity indexes that were developed under the EAN project.</p>
DR09	Liaison with MINFA Agribusiness Cell	<p>The GOP has established an Agribusiness Cell and the EW's Directorate of Economic Research will be updating marketing costs, the marketing bill, and indexes of agribusiness inputs, production, and productivity. It is important that the EW have good liaison with the newly formed Agribusiness Cell so that their efforts will be complementary.</p>	<p>Assist the EW in establishing and continuing good liaison with the Agribusiness Cell and strive to conduct cooperative or at least complementary economic research activities.</p>
DR10	IFPRI Research Program	<p>To alleviate poverty in Pakistan, the agricultural development strategy with its goals of providing food self-reliance and rural employment stresses improved agricultural productivity. Its four objectives, namely, efficient agriculture resource use, increased institutional capacity, human resource development, and agricultural policy reform, are sought to be met through research and rural development. It is believed that research, particularly the field-based research of talking to farmers and consumers, provides insights into relationships which then leads to improve policy.</p>	<p>International Food Policy Research Institute (IFPRI) was awarded studies under EPA component of the Food Security Management Project in its first phase during 1986. A huge data on household and farm economy was collected for these studies. Since IFPRI has developed the capability to provide technical research support, a PIO/T was signed by GOP/USAID to utilize this accumulated data for conducting studies in the following broad areas: i) Farm/Non-farm Linkages; ii) Price Stabilization and Trade; and iii) Human Capital Accumulation. IFPRI in the first phase of its work in Pakistan concentrated basically on the collection of primary data pertaining to various aspects of consumption, nutrition, production, education, migration and employment, etc. The present research program of IFPRI mainly consists of the analysis of this data.</p>
DR11	Agricultural Pricing Policy	<p>Ministry of Food and Agriculture (MINFA) has prepared a project to conduct two studies in collaboration with World</p>	<p>The instruments of growth, yield increasing technological change and shift in output composition, are largely</p>

(Continued)

Table 3. Activities Included in the 1991-92 Annual Work Plan (Continued)

Activity Description	GOP Policy or EW Background	Objectives
DR12 Agricultural Institutions	<p>Bank. These studies will be awarded to a team of foreign and local consultants selected by the World Bank and will be financed by Government of the Netherlands. The objective of the project is to develop information that leads to policies that will accelerate the growth rate of the agricultural sector to the 5 percent level targeted by the National Commission on Agriculture (NCA) in a sustainable manner so as to alleviate poverty and enhance the environment. NCA based the acceleration of the growth rate on yield increasing technological change and shift in output composition increasingly intensive production mix.</p> <p>Ministry of Food and Agriculture (MINFA) has prepared a project to conduct two studies in collaboration with World Bank. These studies will be awarded to a team of foreign and local consultants selected by the World Bank and will be financed by Government of the Netherlands. The objective of the project is to develop information that leads to policies that will accelerate the growth rate of the agricultural sector to the 5 percent level targeted by the National Commission on Agriculture (NCA) in a sustainable manner so as to alleviate poverty and enhance the environment. NCA based the acceleration of the growth rate on yield increasing technological change and shift in output composition increasingly intensive production mix.</p>	<p>dependent on a facilitative prices policy. The study on Pricing Policy endeavors to examine the existing thrusts of agricultural price policies, analytical techniques and implementing institutions to attain flexibility in production pattern and resource allocation. The study would establish agenda for pricing policy reforms and related institutional arrangements which will contribute towards a sustainable 5 percent annual growth rate in agriculture.</p>
DS01 Agricultural Data System	<p>Almost all policy analysis and decision making for Pakistan agriculture requires relevant, accurate and timely data. Most such data is required in an easily accessible machine readable form conducive to machine manipulation.</p>	<p>The main objective of the study is to review the aims, functions and performance of Pakistan's major agricultural institutions and recommend ways to strengthen them in order to improve their efficiency so as to enhance their capability to promote farmers' increased productivity, income and welfare. A systematic analysis will be carried out to determine priorities, simplify the process of prioritization and sequencing for institutional development.</p> <p>Continue to maintain, document and expand the computerized agricultural data system in a local area network mode to facilitate easy access to relevant, accurate basic and derived statistics and to provide users training on how to use the data system.</p>
DS02 Monthly Fertilizer Sales	<p>Fertilizer is the most important cash expense for crop production. Thus it is important to monitor the monthly fertilizer sales as an indicator of crop conditions and crop prospects.</p>	<p>Compile a monthly report on fertilizer sales.</p>
DS03 Agricultural Prices Briefing Paper	<p>Agricultural commodity prices in Pakistan can be quite volatile, especially for some seasonal commodities subject to wide swings in production due to weather, price incentives and other supply phenomena. Each week, the EW provides input for the GOP Joint Additional Secretary's weekly</p>	<p>Review the EW's input into the Joint Additional Secretary's weekly agricultural prices briefing paper and make recommendations for appropriate changes.</p>

(Continued)

Table 3. Activities Included in the 1991-92 Annual Work Plan (Continued)

Activity	Description	GOP Policy or EW Background	Objectives
		agricultural prices briefing paper.	
DS04	Weather and Crop Conditions Data	Regular appraisals of the weather and crop conditions is necessary for commodity situation and outlook monitoring and for timely GOP decisions on both crop input supplies and crop procurement.	Compile and issue a quarterly weather and crop bulletin that summarizes relevant weather data and crop growing conditions by district and province.
DS05	Agricultural Statistics of Pakistan	Although most statistics have to be analyzed and interpreted to achieve their full utility in policy analysis, there are numerous standard data that should be routinely published to facilitate their usefulness in policy analysis and decision making and, to some extent, in providing a statistical profile of Pakistan food and agriculture, are useful in and of themselves.	1.) Produce an annual comprehensive publication containing time series data on all relevant agricultural data at the national and Provincial levels.
DS06	Crop Statistics of Pakistan, by District	Although Agricultural Statistics of Pakistan is published annually, it is not possible to publish crop data at the district level in ASP. Yet the demand for such district level data is large. Thus, a short time series of district level crop data needs to be published periodically in a sperate document.	Periodically publish, about every two or three years, "Crop, Area, Production, By Districts". 1991-92 is a publication year.
DS07	Fruits, Vegetables and Condiment Statistics	Although small compared to wheat and other major crops, fruits, vegetables and condiments are very important in the Pakistani diet and offer a good potential for future exports. Thus, it is desirable to annually publish detailed statistics on these special crops for analytical use by DAP, DER and other National and International agencies.	Annually publish: Statistics on Fruits, Vegetables and Condiments.
DS08	Pocket Book of Agricultural Statistics	It is convenient to have a small "Pocket Book" of basis agricultural statistics that can be easily carried in a shirt or coat pocket.	Annually publish "Pakistan Agricultural Data" (Pocketbook).
DS09	Agricultural Chart Book	Decision makers in food and agriculture are often very bush and do not have time to study large amounts of data or to read comprehensive technical reports. And often, a graph or chart can illustrate important technical economic or policy issues, either by themselves or as part of a written document or verbal presentation. Thus, a chart book can complement other EW publications. The prototype Chart book developed by the EAN project has been well received.	2.) Institutionalize an annual chart book publication in the EW using the EAN Chart book as a prototype but including more economic and commodity information.
DS10	Trade Data	Monitoring, identifying potential problems and analyzing issues with respect to agricultural trade issues	Develop an agricultural trade data base including Pakistan agricultural exports, imports, trading partners and

(Continued)

Table 3. Activities Included in the 1991-92 Annual Work Plan (Continued)

Activity	Description	GOP Policy or EW Background	Objectives
		requires a variety of data collected by the Federal Bureau of Statistics. The EW needs to develop an agricultural trade data bank that will permit the Directorate of Economic Research to study trading patterns and conditions and for the Directorate of Agricultural Policy to analyze actual and potential problems and to advise the GOP on options for dealing with the problems.	international prices, by commodity traded.
DS11	Crop Forecasting	Given the importance of wheat in the Pakistan food supply, its dominance in crop production and the importance placed on sound management of wheat supplies by the GOP, it is imperative that the EW be able to generate the best possible forecasts of wheat production. Such forecasts are especially important for the GOP to set reasonable procurement and release prices and to plan any wheat imports when world markets are as favorable as possible.	1.) Review and modify, if desirable, the wheat forecasting model developed by the EW and the FAO Early Warning and Crop Forecasting project, and then combine the best possible data, model forecasts, and professional judgement to supply the best possible forecasts of wheat area, yield and production as required to support the EW wheat situation and outlook reports; and 2.) If additional resources become available, expand the crop forecasting capability to other major crops such as rice and cotton.
EP01	Technical Assistance Plan	The EPA contract includes 30 months of expatriate professional services and 15 months of Pakistan professional temporary staff utilization.	Develop a sound utilization schedule for the EPA allocation of expatriate and Pakistan temporary professional staff resources, to include names, terms of reference, and time schedule, as an
EP02	EPA Quarterly Report	The EPA contract with USAID requires quarterly project reports.	Produce EPA quarterly reports that both satisfy contractual obligations and facilitate good project implementation, monitoring and evaluation.
EP03	EPA End of Project Report	EPA Contractual Obligation	Provide a comprehensive account of accomplishments over the three year life of the EPA Project.

Table 4. 1991-92 Priorities and Strategy Emphasis

Activity	Description	Priority	Strategy Emphasis
DP01	Input/Output Analysis	Urgent	Capacity enhancement
DP02	Agricultural Review and Policy Implications	Important	Capacity enhancement
DP03	Aggregate Measures of Government's Support to Agriculture	Important	Capacity enhancement
DP04	Wheat Policy Study	Important	Capacity enhancement
DP05	Pakistan Agricultural Sector Model (PASM)	Urgent	Capacity enhancement
DP06	Advisory Committee on Agricultural Policy	Urgent	Capacity enhancement
DP07	Implementation of NAP	Urgent	Operational product
DR01	Wheat Situation and Outlook	Urgent	Capacity enhancement
DR02	Situation Reports for other Major Crops	Urgent	Capacity enhancement
DR03	Situation and Outlook for Minor Crops	Urgent	Capacity enhancement
DR04	Farm Income	Urgent	Capacity enhancement
DR05	Farm Budgets	Important	Capacity enhancement
DR06	Agricultural Credit Study	Deferable	Capacity enhancement
DR07	Margins and Marketing Bill Estimates	Urgent	Capacity enhancement
DR08	Farm and Agribusiness Inputs, Production and Productivity Index Updates	Urgent	Capacity enhancement
DR09	Liaison with MINFA Agribusiness Cell	Important	Organizational development
DR10	IFPRI Research Program	Important	Capacity enhancement

(Continued)

Table 4. 1991-92 Priorities and Strategy Emphasis (Continued)

Activity	Description	Priority	Strategy Emphasis
DR11	Agricultural Pricing Policy	Important	Organizational development
DR12	Agricultural Institutions	Important	Organizational development
DS01	Agricultural Data System	Urgent	Operational product
DS02	Monthly Fertilizer Sales	Important	Capacity enhancement
DS03	Agricultural Prices Briefing Paper	Important	Operational Product
DS04	Weather and Crop Conditions Data	Important	Capacity enhancement
DS05	Agricultural Statistics of Pakistan	Urgent	Operational product
DS06	Crop Statistics of Pakistan, by District	Important	Operational Product
DS07	Fruits, Vegetables and Condiment Statistics	Important	Operational product
DS08	Pocket Book of Agricultural Statistics	Important	Operational Product
DS09	Agricultural Chart Book	Important	Capacity enhancement
DS10	Trade Data	Important	Capacity enhancement
DS11	Crop Forecasting	Urgent	Operational product
EP01	Technical Assistance Plan	Urgent	EPA Contract
EP02	EPA Quarterly Report	Urgent	EPA Contract
EP03	EPA End of Project Report	Deferable	EPA Contract
EW01	Annual Work Plan	Urgent	Organizational development
EW02	Strategic Planning	Important	Organizational development
EW03	Purpose Statements	Urgent	Organizational development

(Continued)

Table 4. 1991-92 Priorities and Strategy Emphasis (Continued)

Activity	Description	Priority	Strategy Emphasis
EW04	Job Descriptions	Urgent	Organizational development
EW05	Training Plan	Urgent	Organizational development
EW06	Computer Plan	Urgent	Organizational development
EW07	Procurement Plan (PLA Account)	Urgent	Organizational development
EW08	Seminars	Important	Organizational development
EW09	Policy Log	Important	Organizational development
EW10	Agriculture in Pakistan (Revised)	Important	Capacity enhancement

Table 5. Economic Wing Unit Responsibilities and Coordination

Activity	Description	Coordinator	Section	Staff	Cooperating Units
DP01	Input/Output Analysis	K. S. Ahmad	AGBU	Abdul Shakoore Sabri	DAP/AGAN
DP02	Agricultural Review and Policy Implications	B. A. Malik	AGAN	Mian Bashir, Mohammad Aslam	DAS, DAFO
DP03	Aggregate Measures of Government's Support to Agriculture	M. Ibrar	AGAN	Abdul Majeed	
DP04	Wheat Policy Study	B. A. Malik	AGAN	Mohammed Ibrar, Tanveer A. Butt, Mohammed Nawaz	DER, COSI
DP05	Pakistan Agricultural Sector Model (PASM)	B. A. Malik	AGAN	Tanveer A. Butt, Mohammed Nawaz	
DP06	Advisory Committee on Agricultural Policy	A. H. Maan,		B. A. Malik	
DP07	Implementation of NAP	B. A. Malik		R. U. Burki, Shoaib Bashir	
DR01	Wheat Situation and Outlook N. H. Naqvi	Nasiruddin	COSI	B. A. Bhatti,	FAFI; DAP, AGAN
DR02	Situation Reports for other Major Crops	Nasiruddin	COSI	B. A. Bhatti, N. H. Naqvi	DAS
DR03	Situation and Outlook for Minor Crops	Nasiruddin	COSI	Mubadher Ahmed	DAS/DAPF
DR04	Farm Income	A. Abbasi	FAFI		
DR05	Farm Budgets	A. Abbasi	FAFI	S. A. Awan, Habib Ahmad, and Saleem Akhtar	DAP/AGAN
DR06	Agricultural Credit Study	Nassar Hussain	FAFI	Masiruddin	
DR07	Margins and Marketing Bill Estimates and Productivity Index Updates	K. S. Ahmad	AGBU	Abdul Q. Paracha, Iftikharullah, Mohammad Ijaz	
DR08	Farm and Agribusiness Inputs, Production	K. S. Ahmad	AGBU	Muhammad Ijaz Ahmad	
DR09	Liaison with MINFA Agribusiness Cell	K. S. Ahmad	AGBU		
DR10	IFPRI Research Program	K.S. Ahmad	AGBU	A.Q. Paracha, Muhammad Ijaz, Iftikhar Ullah, A. Majeed	
DR11	Agricultural Pricing Policy	K.S. Ahmad	AGBU	A.Q. Paracha, Muhammad Ijaz, Iftikhar Ullah, A. Majeed	
DR12	Agricultural Institutions	K.S. Ahmad	AGBU	A.Q. Paracha, Muhammad Ijaz, Iftikhar Ullah, A. Majeed	
DS01	Agricultural Data System	Noor Mohammad	DAPR	All DAS	DAP, DER, EPA
DS02	Monthly Fertilizer Sales	M.A. Jafri		Mr. Majahid	
DS03	Agricultural Prices Briefing Paper	M. A. Jafri		T. Shah	
DS04	Weather and Crop Conditions Data	M. A. Jafri		Khan Mohammad	

(Continued)

Table 5. Economic Wing Unit Responsibilities and Coordination (Continued)

Activity	Description	Coordinator	Section	Staff	Cooperating Units
DS05	Agricultural Statistics of Pakistan	M. A. Jafri	DAPO	Y. Haleem, Mr. Younus	DAAS, AMIS
DS06	Crop Statistics of Pakistan, By District	M. A. Jafri		Yousuf Haleem	DAAS-Mr. Akram
DS07	Fruits, Vegetables and Condiment Statistics	M. A. Jafri		Yousuf Haleem, Mr. Younus	DAAS-Mr. Akram
DS08	Pocket Book of Agricultural Statistics	M. A. Jafri		Yousuf Haleem, Mr. Younus	DAAS Staff
DS09	Agricultural Chart Book	M. A. Jafri	DAPR	Mr. Fayyaz	All
DS10	Trade Data	M. A. Jafri	DAPR	M. S. Malik	DAP
DS11	Crop Forecasting	Noor Mohammad	DAFO	N. Mohammad, F. Ahmad, Mr. Rashid	DER, COSI
EP01	Technical Assistance Plan	A. H. Maan	-		
EP02	EPA Quarterly Report	R. J. McConnen	-		
EP03	EPA End of Project Report	R. J. McConnen	-		
EW01	Annual Work Plan	A. H. Maan	All		
EW02	Strategic Planning	A. H. Maan	All		
EW03	Purpose Statements	A. H. Maan	All		
EW04	Job Descriptions	A. H. Maan	All		
EW05	Training Plan	A. H. Maan	All		
EW06	Computer Plan	A. H. Maan	All	Noor Mohammad	
EW07	Procurement Plan (PLA Account)	A. H. Maan	All		
EW08	Seminars	A. H. Maan	All		
EW09	Policy Log	A. H. Maan	All		
EW10	Agriculture in Pakistan (Revised)	B. A. Malik	All	DAS, DAPR	

Table 6. Economic Wing Training to be Provided by EPA

Activity	Description	On The Job	Study Tours	Short Courses	Total
DP01	Input/Output Analysis	6.0	1.0	2.0	9.0
DP02	Agricultural Review and Policy Implications	4.0	-	-	4.0
DP03	Aggregate Measures of Government's Support to Agriculture (PSEs & CSEs)	3.0 (2.0)	-	-	3.0 (2.0)
DP04	Wheat Policy Study	10.0	-	2.0	12.0
DP05	Pakistan Agricultural Sector Model (PASM)	16.0 (3.0)	1.0	2.0	19.0 (3.0)
DR01	Wheat Situation and Outlook	6.0 (3.0)	1.0	-	7.0 (3.0)
DR02	Situation Reports for other Major Crops	6.0	1.0	1.0	8.0
DR03	Situation and Outlook for Minor Crops	2.0	1.0	-	3.0
DR04	Farm Income	14.0 (6.0)	1.0	2.0	17.0 (6.0)
DR07	Margins and Marketing Bill Estimates	8.0 (5.0)	1.0	1.0	10.0 (5.0)
DR08	Farm and Agribusiness Inputs, Production and Productivity Index Updates	2.0 (1.0)	.5	.5	3.0 (1.0)
DS01	Agricultural Data System	4.0	-	10.0	14.0
EW01	Annual Work Plan	6.0 (5.0)	-	-	6.0 (5.0)
EW03	Purpose Statements	2.0 (2.0)	-	-	2.0 (2.0)
EW04	Job Descriptions	1.0 (0.5)	-	-	1.0 (0.5)
EW10	Pakistan Agriculture	3.0	-	-	3.0
EW05	Training Plan				
	Computer Skills	16.0 (2.0)	-	10.0	26.0 (2.0)
	Management	6.0 (2.0)	-	4.0	10.0 (2.0)
	Un-allocated	TBD		25.0	
	Total	113.0 (31.5)	7.5	34.5	180.0 (31.5)

Table 7. Temporary Expatriate Staff Activity Assignments

Activity	Description	Name	Months
DP01	Input/Output Analysis	G. Taylor	2.00
DP02	Agricultural Review and Policy Implications	TBD	2.00
DP04	Wheat Policy Study	TBD	2.00
DP05	Pakistan Agricultural Sector Model (PASM)	B. McCarl S. Davies	2.00 2.00
DR01	Wheat Situation and Outlook	B. Spencer	2.50
DR02	Situation Reports for other Major Crops	B. Spencer	2.00
DR04	Farm Income	D. Lybecker	3.00
DR05	Farm Budgets	D. Lybecker	1.00
DR07	Margins and Marketing Bill Estimates	F. Walters	4.00
DR08	Farm and Agribusiness Inputs, Production and Productivity Index Updates	F. Walters	1.00
EW05	Training Plan	D. Erickson Burkhalter	1.00 1.00
EW10	Pakistan Agriculture	TBD	2.00
Total:			27.50

Table 8. Temporary Pakistani Staff Activity Assignments

Activity	Description	Name	Months
DP01	Input/Output Analysis	R. Shafiq-ur-Rehman	3.0
DR03	Situation and Outlook for Minor Crops	R. Shafiq-ur-Rehman	3.0
DR07	Margins and Marketing Bill Estimates	Ijaz	12.0
DS01	Agricultural Data System	S. A. Shah	6.0
DS09	Agricultural Chart Book	TBD	2.0
Total:			26.0

Table 9. Description and Sources of Prototype Reports

Activity	Description	Prototype Report	Source
DP01	Input/Output Analysis	Report on impact of changes in Pakistan's agriculture on rest of the economy and on individual sectors	EW/EPA
DP02	Agricultural Review and Policy Implications	Pakistan Agricultural Review and Policy Implications	EW/EPA
DP03	Aggregate Measures of Government's Support to Agriculture	Aggregate Measures of Government's Support to Agriculture	EW/EPA
DP04	Wheat Policy Study	Potential adjustment in the Pakistan Wheat Sector with Policy Implications.	EW/EPA
DP05	Pakistan Agricultural Sector Model (PASM)	Adjustment Potential in Pakistan Agriculture with Policy Implications.	EW/EPA
DR01	Wheat Situation and Outlook	Wheat Situation and Outlook Report For Pakistan: Crop Prospects, May, 1991.	EW/EPA
		Wheat Situation and Outlook Report For Pakistan: 1991-92 Marketing Year Prospects	EW/EPA
DR02	Situation Reports for other Major Crops	Rice Situation and Outlook for Pakistan	EW/EPA
		Sugar Situation and Outlook Report For Pakistan	EW/EPA
DR03	Situation and Outlook for Minor Crops	Onion Situation and Outlook Report for Pakistan	EW/EPA
DR04	Farm Income	Pakistan Farm Income: 1983 - 1989	EW/EPA
		Alternative Measures of Net Farm Income	EW/EPA
DR07	Margins and Marketing Bill Estimates	National Food Marketing Costs and Agribusiness In Pakistan (08/30/91).	EW/EPA
		The Wheat Marketing Bill in Pakistan (02/30/92).	
DR08	Farm and Agribusiness Inputs, Production and Productivity Index Updates	Changes in the Productivity of the Pakistan Food and Fiber System	EW/EPA
DS01	Agricultural Data System	Comprehensive AMIS User's Manual	EW/AMIS
DS04	Weather and Crop Conditions Data	Quarterly Weather and Crop Bulletin	EW/EPA
DS07	Fruits, Vegetables and Condiment Statistics	Fruits, Vegetables and Condiments	EW

(Continued)

Table 9. Description and Sources of Prototype Reports (Continued)

Activity	Description	Prototype Report	Source
DS08	Pocket Book of Agricultural Statistics	Pakistan Agricultural Data	EW
DS09	Agricultural Chart Book	Chart Book: The Agricultural Reference Guide	EAN
DS10	Trade Data	Agricultural Trade of Pakistan	EW/EPA
EW10	Pakistan Agriculture	Agriculture in Pakistan	EAN

a b l e 1 0 . A c t i v i t y T i m e F r a m e				
Act.	Description	Start Date	Comp. Date	90/JASOND/91/JFMAMJJASOND/92/JFMAMJJASOND/93/JFMAMJ
DP01	Input/Output Analysis	8/91	2/92	.....WWW....WD
DP02	Agricultural Review and Policy Implications	1/92	6/92	.....WWWWD
DP03	Aggregate Measures of Government's Support to Agriculture	10/90	11/91	.....WWW....WWWWD
DP04	Wheat Policy Study	6/91	7/92	.....WWWWD
DP05	Pakistan Agricultural Sector Model (PASM)	8/91	8/92	.....WWW....WWWWD
DP06	Advisory Committee on Agricultural Policy	9/91	Continuous	.....WWW....WWWWD
DP07	Implementation of NAP	1/91	Continuous	.....WWWWD
DR01	Wheat Situation and Outlook	1/91	3/93	.....WWD....WD....WWD....WD....WWD
DR02	Situation Reports for other Major Crops	5/91	6/92	.....WWDWWW....WWDWW
DR03	Situation and Outlook for Minor Crops	7/91	6/93	.....WWDWWW....WWWWD
DR04	Farm Income	10/90	1/93	.....WWW....WWWWD
DR05	Farm Budgets	2/91	6/93	.....WWWWD
DR06	Agricultural Credit Study			
DR07	Margins and Marketing Bill Estimates	1/91	3/93	.....WWWWDWWW....WWDWWWWD
DR08	Farm and Agribusiness Inputs, Production and Productivity Index Updates	7/91	8/91	.....WD
DR09	Liaison with MINFA Agribusiness Cell	12/91	5/92	.....W....WWWWD
DR10	IFPRI Research Program	1/91	Continuous	.....WWWWD
DR11	Agricultural Pricing Policy	7/91	3/92	.....WWWWD
DR12	Agricultural Institutions	7/91	3/92	.....WWWWD
DS01	Agricultural Data System	7/90	Continuous	...WWWWD
DS02	Monthly Fertilizer Sales	9/91	Continuous	.....WWWWD
DS03	Agricultural Prices Briefing Paper	9/91	Continuous	.....WWWWD
DS04	Weather and Crop Conditions Data	10/91	Continuous	.....WWWWD
DS05	Agricultural Statistics of Pakistan	11/91	4/92	.....WWWWD

(Continued)

Table 11. Deliverables and Performance Targets for 1991-92

Act.	Description	1991-92 Deliverables	1991-92 Performance Targets
GP01	Input/Output Analysis	DP01.91.01: Prototype report on impact of changes in agriculture sector on rest of the economy and on individual sectors (2/28/92). DP01.92.01: Pakistan Input/Output Model: User's Manual (2/28/92).	1. Work Plan activities relating to the I/O model are revised with the assistance of Forest Walters (1/30/91) 2. Appropriate I/O model activities are included in the 1991-92 Work Plan (6/30/91).
DP03	Aggregate Measures of Government's Support to Agriculture	DP03.91.01: A prototype report "Aggregate Measures of Government's Support to Agriculture" (11/30/91).	1.) EPA deliverable 91.43.01 submitted to USAID/ARD (11/30/91)
DP04	Wheat Policy Study	DP04.92.01: Potential Adjustment in the Pakistan Wheat Sector and GOP Policy Implications (7/30/92).	1.) PASM is installed on an EW Computer and two EW officers have received minimal, on the job, training sufficient for them to be able to maintain the model, make simple changes in coefficients and right hand side constraints, run the model and prepare comparative analysis of different runs resulting from such simple changes (8/30/91). 2.) Prepare comparative analysis of different runs resulting from such simple changes (12/30/91). 3.) A PASM92 User's Manual is drafted (1/30/92). 4.) The outline of the wheat sector study is completed (2/30/92). 5.) Specifications and data requirements for modifying PASM to conduct wheat policy analysis are identified (3/30/92). 6.) PASM modifications necessary to conduct the wheat policy analysis are complete and documented (4/30/92). 7.) Steve Davies submits his second TDY report (4/30/92).
DP05	Pakistan Agricultural Sector Model (PASM)	DP05.92.01: Pakistan Agricultural Sector Model (PASM) User's Manual (4/30/92).	1. Steve Davies completes a TDY mission to complete the initial training of three EW officers in the structure and use of PASM (11/30/91). 2. Steve Davies completes his second TDY mission to help the AGAN section complete the Adjustment study outline and the modifications in the PASM model required to conduct the study (4/30/92). 3. EPA deliverable 92.49.01 is submitted to USAID/ARD (6/30/92).
DR01	Wheat Situation and Outlook	DR01.91.02: Prototype Situation and Outlook Report for Wheat: 1991- 92 Marketing Year Outlook (10/30/91). DR01.92.01: Situation and Outlook Report for Wheat: 1992 Crop Prospects (3/30/92)	1. The wheat situation and outlook report covering marketing year outlook is reviewed at an EW seminar (09/20/91). The wheat situation report on marketing year outlook is issued (09/30/91). The Commodity Situation Section staff, DER completes the 1992 wheat situation and outlook report covering the crop prospect with only minor assistance from Bill Spencer (3/30/92)
DR02	Situation Reports for other Major Crops	DR02.91.01: Prototype Rice Situation and Outlook Report For Pakistan (10/30/91). DR02.92.01: Prototype Sugarcane Situation and Outlook Report For Pakistan (3/30/92)	EPA deliverable 29.91.01 is submitted to USAID/ARD (10/30/91).
DR03	Situation and Outlook for Minor Crops	DR03.91.01: Onions Situation and Outlook Report For Pakistan (7/30/91)	1. Draft situation and outlook reports on onions reviewed at an EW seminar (07/30/91) 2. EPA deliverable 91.28.01 submitted to USAID/ARD (08/30/91)

(Continued)

Table 12. Deliverables and Performance Targets for 1991-92 (Continued)

Act.	Description	1991-92 Deliverables	1991-92 Performance Targets
DR04	Farm Income		1. Don Lybecker completes a second TDY mission to help the EW complete tables for 1983 to 1989 by Province and Nation (July 30, 1991). 3. Don Lybecker assist the EW in developing a draft report on 1983 to 1989 farm income (January 30, 1992)
DR05	Farm Budgets		1. Don Lybecker reports the status and work to be done with respect to the farm budget coefficients in his TDY reports (8/30/91 & 1/30/92).
DR07	Margins and Marketing Bill Estimates	DR07.92.01: Wheat Marketing Bill Report (02/28/92).	1. Forest Walters and AGBU staff conduct an EW Seminar on the marketing margins and marketing bill estimates activity. 2. EPA deliverable 91.36.01 submitted to USAID/ARD at the end of Forest Walter's second TDY mission to Islamabad (08/30/91). Forest Walters submits his second TDY report (8/30/91). 3. Forest Walters and the AGBU staff present a second EW seminar on the marketing margins and marketing bill estimates activity. 4. Forest Walters and the AGBU staff present an EW seminar on the marketing bill chapter of the revised Agriculture in Pakistan publication. 5. EPA deliverable 92:36:01 submitted to USAID/ARD at the end of Forest Walter's third TDY mission to Islamabad (02/28/92)
DR08	Farm and Agribusiness Inputs, Production and Productivity Index Updates	DR08.91.01: A prototype report "Changes in Food and Agricultural Inputs, Production and Efficiency"(8/30/91).	1.) EPA deliverable 91.38.01 is submitted to USAID/ARD (8/30/91). 2.) The ability of the EW to independently conduct the productivity index work in the future is evaluated in Forest Walter's TDY report (8/30/91)
DR11	Agricultural Pricing Policy		1. Preparation of PC-1; 2. Approval of the PC-1 by Departmental Development Working Party (DDWP) MINFA; 3. Letter to Government of Netherlands for funds; Agricultural Pricing Policy Research Report completed (3/31/92).
DR12	Agricultural Institutions		1. Preparation of PC-1; 2. Approval of the PC-1 by Departmental Working Group (DDWG) MINFA; 3. Letter to Government of the Netherlands for funds; 4. Agricultural Institutions Study Research Report completed (03/31/92).
DS01	Agricultural Data System	DS01.92.01: Comprehensive AMIS User's Manual (05/30/92).	EPA deliverable 91.21.01 is submitted to USAID/ARD (05/30/92). Annual budget for maintaining AMIS and for publishing DAS statistical publications is submitted to Dr. Maan (1/30/92).
DS02	Monthly Fertilizer Sales		Monthly Fertilizer Sales report is issued.
DS03	Agricultural Prices Briefing Paper		Work under the activity is reported in each EPA Quarterly Report.
DS04	Weather and Crop Conditions Data	DS04.91.01: Prototype Quarterly Weather and Crop Bulletin (12/30/91).	Prototype Quarterly Weather and Crop Bulletin submitted to USAID/ARD (12/30/91).

(Continued)

Table 11. Deliverables and Performance Targets for 1991-92 (Continued)

Act.	Description	1991-92 Deliverables	1991-92 Performance Targets
DS05	Agricultural Statistics of Pakistan		Agricultural Statistics of Pakistan is published (04/30/92).
DS06	Crop Statistics of Pakistan, by District		Crop, Area, Production (By District) 1986-87 To 1989-90 is published (4/30/92).
DS07	Fruits, Vegetables and Condiment Statistics		Statistical document Fruits, Vegetables and Condiments is published (1/30/92).
DS08	Pocket Book of Agricultural Statistics		Publication of Pakistan Agricultural Data (1/30/92).
DS09	Agricultural Chart Book		The first EW Chart Book is completed (12/30/91).
DS10	Trade Data	DS10.92.01: Statistics on the Agricultural Trade of Pakistan (06/30/92).	1. EPA Deliverable 92.24.01 is submitted to USAID/ARD (06/30/92)
DS11	Crop Forecasting		1. Early area, yield and production forecasts are completed for wheat (1/30/92). 3. A write up of the early wheat forecasts is drafted for the wheat situation and outlook report (3/30/92).
EP01	Technical Assistance Plan	EP01.91.01: EPA Technical Assistance Plan (12/30/91).	1.) The latest plans with respect to temporary technical assistance are included in the 1991-92 revision of the Work Plan (7/15/91). 2.) The EPA TAP (EPA deliverable 91.51.01 will be compiled and submitted to USAID/ARD (8/30/91). 3.) Each QR report and six month revision of the AWP report progress in implementing, and changes in, the TAP (Quarterly).
EP02	EPA Quarterly Report	EP02.91.03, E002.91.04, EP02.92.01, and EP02.92.02.: EPA Quarterly Reports (07/15/91), (10/15/91), (01/15/92), (04/15/92).	Quarterly Reports are Submitted to USAID by the 15th of the month following the quarter covered in the report.
EW01	Annual Work Plan	EW01.91.02: Annual Work Plan (AWP): 1991-92. EW01.92.01: Annual Work Plan (AWP): 1991-92 (Revised).	The 1991-92 AWP (EPA deliverable 91.01.02) completed and submitted to USAID/ARD (7/15/91). 2. The six month revision of the 1919-92 AWP. (EPA deliverable 92.01.01) is completed and submitted to USAID/ARD (1/15/92)
EW04	Job Descriptions	EW04.91.01: Economic Wing Mission, Organization, Staffing Plan and Job Descriptions (10/30/91).	1. EPA deliverable 91.03.01 submitted to USAID/ARD (09/30/91).
EW05	Training Plan	EW05.91.01: Training Plan (11/30/91)	1. EPA deliverable 91.04.01 is submitted to USAID/ARD (11/30/91).
EW06	Computer Plan	EW06.91.02: EW Computer Plan (Revised) (12/30/91)	1. EPA deliverable 91.13.02 submitted to USAID/ARD (12/30/91).
EW07	Procurement Plan (PLA Account)	EW07.91.01: An EPA deliverables report containing a suggested procurement plan for the EW (09/30/91).	1. Draft of EW procurement plan completed (8/30/91). 2. Draft procurement plan reviewed by the Directors, DG and USAID/ARD (9/15/91). 3. EPA deliverable 91.19.01 submitted to USAID/ARD (9/30/91)
EW08	Seminars		1. The EW seminar program is summarized in each EPA Quarterly Report (Quarterly).

(Continued)

Table 11. Deliverables and Performance Targets for 1991-92 (Continued)

Act.	Description	1991-92 Deliverables	1991-92 Performance Targets
EW09	Policy Log		1.) Successive EPA Quarterly Reports summarize the Policy Log activity (Quarterly).
EW10	Pakistan Agriculture		Annotated outline of Agriculture in Pakistan with writing assignments is reviewed with USAID/ARD (7/15/92).

APPENDIX

BACKGROUND OF THE ECONOMIC WING AND OF THE EPA PROJECT

APPENDIX

BACKGROUND OF THE ECONOMIC WING AND OF THE EPA PROJECT

Prior to 1990, MINFA obtained economic information about Pakistan Agriculture from three principal sources: APCom, PARC, and the PU. APCom, organized in 1981 by a MINFA resolution, is an autonomous MINFA unit responsible for making recommendations on commodity procurement prices. PARC is involved primarily with identifying and coordinating priority research areas relating to technology assessment. Its staff is composed of sociologists, economists, and anthropologists. The PU primarily conducted technical monitoring activities associated with agricultural development plans. In a 1990 reorganization, the PU became the Directorate of Economic Research (DER) in the Economic Wing.

Within the above structure, USAID and MINFA initiated the Food Security Management project in 1985 with a component on Economic Policy Analysis (EPA), one on Agricultural Data Collection (ADC), and a third on Post Harvest Management (PHM). The main purpose of the EPA component was to assist the PU by providing a well defined and sound institutional framework for conducting economic sector analysis. The component was also designed "to strengthen the analytical capabilities of the MINFA as well." The primary purpose of the ADC component is to develop and implement national area frame surveys at the provincial level in order to provide statistically sound estimates of crop area and yield for major crops on a timely and cost effective basis. These two components provide the scope for collection and assembly of improved agricultural data and an expanded capability for policy related staff analysis and economic research. The PHM component conducts research on vertebrate pests and strengthens MINFA's capability to manage its grain storage system. In 1989, the FSM umbrella project was replaced by the Agricultural Sector Support Project (ASSP).

Under the EPA component, two projects were initiated: a Special Studies Project coordinated by the International Food Policy Research Institute (IFPRI) and an Economic Analysis Network project administered by Chemonics. The ADC component was implemented by the National Agricultural Statistics Service of the USDA. The interest here is primarily with the EAN, which directly preceded this EPA Phase II project (EPA).

Through the EAN project, 15 special technical reports were published covering both substantive and methodological topics, and more than 100 shorter technical articles were written. A Directorate of Agricultural Policy (DAP) was organized and staffed with project-supported local staff. Some 450 economists, representing both the private and public sectors, joined a national network of agricultural economists. They served as a panel of experts available to carry out research and review work of others. A bi-monthly newsletter, "Econogram," was sent to all EAN members, providing the basis for information interchange and dialogue on current research activities.

Ten special brochures on "Talks with Economic Experts" were published and 52 computers installed in various public and private institutions. The project supported 65 Pakistanis on long- and short-term training and conducted local seminars and workshops for 249 participants in the areas of agricultural policy, agricultural marketing, economic research policy, technical writing, and applied economic analysis.

A series of long-term studies was commissioned to be conducted by mostly private sector consulting firms using competitive bidding procedures. Short-term studies were carried out directly to address additional policy-sensitive issues.

The long-term, contracted studies covered eight high-priority policy-related research areas. They were designed to provide a database for assessing important policy issues and provide data for use in more formal analytical models of the Pakistani economy. Topics covered included:

- o Fertilizer application and response rates;
- o Impact of mechanization on productivity;
- o Marketing margins for major crops;
- o Farm productivity in the Punjab;
- o Farm productivity in NWFP;
- o Farm productivity in Sind and Baluchistan;
- o Marketing of perishable commodities; and
- o Constraints to developing cooperatives.

The short-term studies program provided MINFA with additional flexibility as EAN staff and short-term consultants could be used, and quality control and timely completion could be assured. Topics under this category included:

- o Productivity of irrigation operation and maintenance investments;
- o Policy analysis of the poultry, sugar cane, and dairy sub-sectors;
- o An inter-industry analysis of agriculture's contribution to the national economy; and
- o An economic analysis of SCARP tube wells.

In addition, methodological studies were undertaken by EAN to develop an analytical framework to support staff analysis responsive to policy needs of MINFA. An input/output model for the Pakistani economy was developed along with a spreadsheet-based budget generator to provide estimates of crop and livestock production costs and a spreadsheet model to estimate national and provincial farm income. Supply and demand functions were estimated for poultry and sugar.

The project created an effective editing and publishing capability, including desktop publishing, capable of producing high-quality reports on a timely basis, introduced new computers to the PU and DAP, and provided computer training and maintenance capabilities.

In the final year of the EAN project the DAP staff were paid from a MINFA PLA account but to date, no EAN staff have been hired as staff members of the EW.

Organized as task forces comprising EAN and DAP staff, three new activities were initiated within the PU: commodity situation reporting, national food marketing bill estimation, and national farm income and cost estimation. Additional staff analysis and studies were undertaken including a description of the food and fiber sector of the Pakistani economy and assessing the impact of farm taxation.

Development of a policy-relevant research and information base has enabled project and MINFA staff to take the lead in current ministry efforts to prepare a revised agricultural policy paper for submission to the National Assembly in mid-1990..

Perhaps equally important to the above direct accomplishment of the EAN project was its instrumental role in the GOP dialogue that resulted in the Economic Wing (EW) formation. The EW, with its three directorates of Agricultural Statistics (DAS), Economic Research (DER) and Agricultural Policy (DAP) (Figure 2), will bring much of the information system necessary for agricultural policy support under one senior manager, the Director General of the EW. It will be essential, however, for the EW to coordinate its activities very closely with the Central Bureau of Statistics, Agricultural Data Collection Project, APCom, the newly formed MINFA Agribusiness Cell and other GOP and private sector organizations instrumental in the Pakistan agricultural policy process.

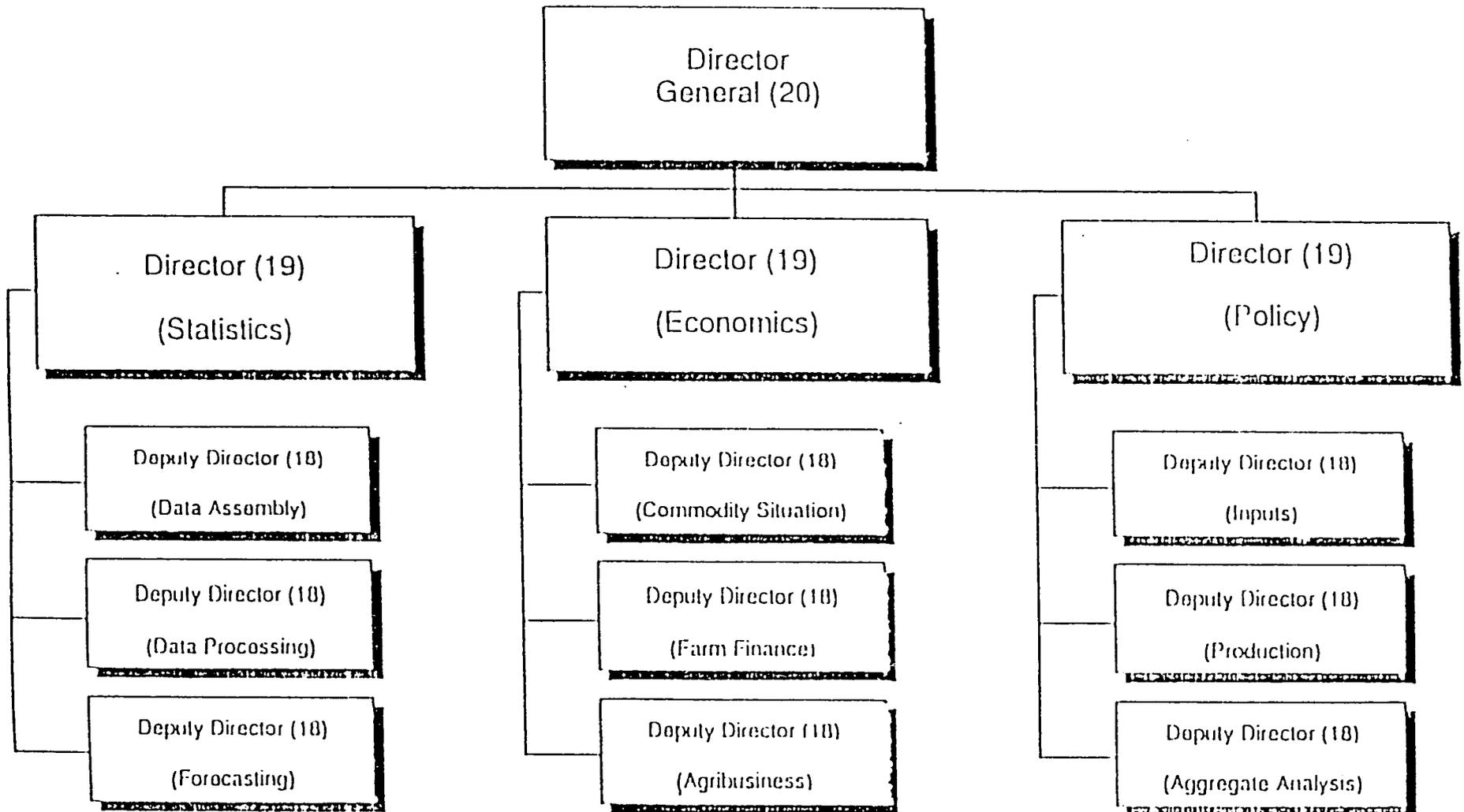
Organization of the Economic Wing

The EW has a classic functional organization following the information system paradigm for food and agriculture. Illustrated in Figure 2, under the overall direction of the Director General, the EW is organized with three Directorates or Divisions and nine sections.

The Directorate of Agricultural Statistics (DAS) is headed by a Division Director and has one Deputy Director. The three sections of the DAS are Data Assembly (DAAS), Data Processing (DAPR), and Data Forecasting (DAFO). Due to the limited number of EW staff, the DAPR and DAFO sections are operated as a combined Data Processing and Data Forecasting section (DAPF).

The Directorate of Economic Research (DER) is headed by a Division Director and has a Deputy Director over each of its three sections: Commodity Situation (COSI), Farm Finance (FAFI), and Agribusiness (AGBU).

Economic Wing Organization Chart



The Directorate of Agricultural Policy is headed by a Director and has one Deputy Director. The three sections of the DAP are : Farm Inputs (FAIN), Farm Production (FAPR), and Aggregate Analysis (AGAN).

If the EW is to fulfill its potential as a supplier of timely, accurate economic intelligence to MINFA, other GOP agencies and the general Pakistan public, it's management team should be increased to provide for a Deputy Division Director over each section and all sections should have significantly more professional officers.



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ANNUAL WORK PLAN

1992-93

(STATISTICAL ADVISOR ACTIVITIES)

Economic and Policy Analysis Project

Economic Wing

Ministry of Food and Agriculture

Islamabad, Pakistan

Chemonics International Consulting Division

USAID Contract No. 391-0492-C-00-0831-00

EPA Deliverable

No. EW01.92.02

(Partial)

October 25, 1992

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ANNUAL WORK PLAN

1992-93

(STATISTICAL ADVISOR ACTIVITIES)

1.0. INTRODUCTION

The EPA Statistical Advisor has Economic Wing (EW) advisory responsibilities for all activities of the Directorate of Agricultural Statistics; the Pakistan Agricultural Sector Model (PASM) in the Aggregate Analysis Section, Directorate of Agricultural Policy (DAP); computer systems management and maintenance; and training plan. In addition, during the first two EPA project years, he exercised major responsibility in compiling the EPA/EW Annual Work Plan. He also had responsibility for the commodity situation and outlook program through the preparation of the first prototype wheat situation report.

This part of the EPA/EW AWP covers the progress to date in the above activities and the 1992-93 work plans for the DAS and PASM activities for which the Statistical Advisor is responsible.

The structure of the report is to cover the progress and plans for each of the above activities according to the following activity status:

<u>Status</u>	<u>Explanation</u>
Operational capability	Through work already completed, the EW has an operational capability to continue these activities without specific significant EPA assistance. Due to a limited number of staff officers and or initiative, the EW may or may not elect to continue some such activities. During 1992-93, the Statistical Advisor will monitor the EW work in these activity areas and provide assistance when needed and requested.
EPA priority	These activities are thought to be critical to the continuing improvement of the EW to accomplish its PC-1 assigned mission. Further, in order to develop an operational capability, further EPA resources and emphasis are required.

Table 1 lists the EPA life of project activities for which the Statistical Advisor either has or has had responsibility, the activity status for the 1992-92 EPA project year, and the EW officers involved in the activity.

Table 1. 1992-93 Annual Work Plan Activities

Act.	Description	Status	EW Staff
DP04	Wheat Policy Study	EPA priority	Mohammed Abrar, Tanveer Butt
DP05	Pakistan Agricultural Sector Model (PASM)	EPA priority	Tanveer Butt
DS01	Agricultural Data System	Operational capability	All Officers
DS02	Monthly Fertilizer Sales	Operational capability	Mr. Majahid
DS03	Agricultural Prices Briefing Paper	Operational capability	T. Shah
DS04	Weather and Crop Conditions Data	Operational capability	Khan Mohammad
DS05	Agricultural Statistics of Pakistan	Operational capability	Y. Haleem, Mr. Younus
DS06	Crop Statistics of Pakistan, by District	Operational capability	Yousuf Haleem
DS07	Fruits, Vegetables and Condiment Statistics	Operational capability	Yousuf Haleem, Mr. Younus
DS08	Pocket Book of Agricultural Statistics	Operational capability	Mr. Younus
DS09	Agricultural Chart Book	Operational capability	Mr. Fayyaz
DS10	Trade Data	EPA priority	M. S. Malik
DS11	Crop Forecasting	Operational capability	N. Mohammad, F. Ahmad, Mr. Rashid
DS12	AGDAT	EPA priority	M. Mujahid Khan, Bashir A. Bhatti, Natiq H. Naqvi
EP02	EPA Quarterly Report	EPA priority NA	NA
EP03	End of Project Report	EPA Priority NA	NA
EW01	Annual Work Plan	EPA priority	Division directors, Deputy Directors
EW03	Purpose Statements	Operational capability	Division Directors, Deputy Directors
EW04	Job Descriptions	Operational capability	Division Directors, Deputy Directors
EW05	Training Plan	Operational capability	All Officers
EW06	Computer Plan	EPA priority	All Officers

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2.0. ACTIVITY PROGRESS AND PLANS

The following paragraphs summarize the progress made in EPA/EW activities for which the Statistical Advisor either was or is responsible for and the plans for 1992-93.

2.1. The Directorate of Agricultural Statistics

The mission of the Directorate of Agricultural Statistics (DAS), Economic Wing (EW), is to collect and process food and agricultural statistics from secondary sources at the Provincial and National levels; disseminate the statistics to researchers, policy analysts, and decision makers in the EW and more broadly across the GOP and Pakistan food and agricultural community; and to develop and use crop forecasting models to provide estimates of crop output before harvest.

To accomplish its mission, the DAS is organized in two sections and has 10 professional officers with the job descriptions contained in Appendix I. During the last two years, the DAS has suffered a loss of two professional officers and the Director has recently retired.

During the first two years of EPA, the FAO/UNDP Agricultural Management Information System (AMIS), was also assisting the DAS. Because AMIS was providing good consulting and financial support for computers, software, etc., no EPA short term technical assistance or computers were provided to DAS. However, the EPA and AMIS projects cooperated fully in areas such as EW activity planning and monitoring; training; seminars and workshops; and computer inventory, management and maintenance. In addition, the EPA Statistical Advisor has his office in the Shaheed-E-Millat Building where the DAS is located and a mini-AMIS local area network was established at 33 Blue Area where the Office of the Director General and Directorate of Economic Research are located. This facilitates the DER use of agricultural data collected and processed by DAS and provides feedback from users on statistical needs to the DAS.

Now that the AMIS Project has been completed, this 1992-93 AWP includes more short term technical assistance manpower, computer equipment, training and other support to the DAS in addition to the continuing efforts of the EPA Statistical Advisor.

DAS has a "state of the art" computerized system for assembling, processing and distributing food and agricultural data. Each year, data on agricultural land use, water, labor, and manufactured inputs; commodity production and utilization; agricultural credit; weather; and agricultural and food prices are received from the primary data collecting organizations in the provinces and National level, the data is checked, organized,

and entered into the data bank. The data can then be electronically processed in the form of standard statistical publications and special reports; or accessed via the local area network within the EW for further economic research and policy analysis.

In addition, the DAS has a reasonable econometric capability to provide late winter forecasts of area planted to wheat and early spring wheat yields at the provincial and national levels.

Although the DAS data system is fully operational, its local area network environment does not lend itself to broad accessibility and use as an on line data system beyond the EW. DAS staff need further training in some computer skills yet to be covered under the EPA training plan, a couple of new statistical publications have not completed, and computer management and maintenance continue to be difficult areas and some computer hardware and software upgrading is needed. During 1992-93, EPA will continue and or initiate new activities in these areas.

2.1.1. Crop Forecasting

Due to budget limitations, it is not feasible for the EW to maintain a site license for the Statistical Analysis System (SAS), used for regression analysis in the wheat crop forecasting activity. Thus, EPA will secure the personal computer based statistical analysis software SPSS/PC, train the appropriate EW officers in its use, and assist DAS in converting their wheat crop forecasting capability from dependence on SAS to SPSS/PC.

2.1.2. AGDAT

The AMIS data system is a very good capability and the DAS is capable of maintaining it and using it to assemble and process agricultural data, to prepare its statistical publications, and within the offices of the EW, access the data for economic and policy analysis. But the data is available outside the EW only through printed form or special computer discs prepared by the DAS.

With modern micro-computer hardware and software, agricultural data available in the EW and elsewhere should be made available to appropriate data users anywhere in Pakistan and around the world. Thus, During 1992-93, EPA will assist the EW in developing a personal computer based agricultural data system (AGDAT) that will be maintained and annually updated by the EW for agricultural data users across Pakistan and internationally (Activity number DS12). And due to increasing global interdependence in food and agriculture and the importance of agricultural trade, agricultural trade will be added to the Pakistan component of AGDAT, and two international data bases will also be added: the FAO AGROSTAT and the USDA/ERS PS&D. As

the EW farm income data becomes more complete, we will also add it and other "economic data" to AGDAT.

To insure the timely completion and documentation of AGDAT and to assist the EW in extending AGDAT to at least four or five institutional users, and to provide adequate training in the use of AGDAT, EPA will hire a Pakistani information systems specialist, Syed Ahmad Shah, for the 12 months of 1992-93. In addition to assisting with AGDAT, Mr. Shah will also provide technical back-stopping to the DAS on the AMIS local area network.

2.2. Economic Wing Organization and Management

The EPA Statistical Advisor exercised major responsibility for several areas of EW work during the first two EPA Project years that can now be considered operational EW capability. It is not clear however, that the EW will choose to maintain all such activities. But with limited time and financial resources, it does not seem wise to devote significant EPA efforts to these activities during 1992-93. However, the Statistical Advisor will offer assistance in these areas if requested by the EW. Generally, these areas include EW annual work planning, unit purpose statements, and officer job descriptions.

2.2.1. Annual Work Plans

During the first few months of EPA, the Statistical Advisor developed a computerized "data base" information system approach to EPA work planning and monitoring. This system was used to develop the AWP and AWP revision during the first two project years and was used to compile this partial EPA AWP. The system was also used to provide information for various EPA Quarterly Reports. This system will continue to be used in planning and monitoring work activities of the Statistical Advisor, and when requested, by the COP, for the broader EPA work plan.

2.2.2. Purpose Statements and Job Descriptions

Using the same computer software as in above, the Statistical Advisor developed data bases for the EW unit purpose statements and officer job descriptions. This data was used to produce two EPA deliverables: "Purpose of the Economic Wing and Its Subordinate Units" and "Economic Wing Mission, Organization, Staffing Plan and Job Descriptions"

2.3. Training

A Training Plan was developed based on EW officer educational backgrounds and an inventory of skills needed for each EW officer to successfully perform his or her job description. By the end of the second EPA project year, the

training plan was about 80 percent implemented and expectations are that the target of 180 participant hours of training will be surpassed. Training Plan implementation will continue to be monitored and progress reported in each EPA Quarterly Report. But no further EPA work is envisioned on a Training Plan document.

2.4. Computer Plan

Supported by a detailed computer inventory, an EW Computer Plan was prepared and revised as new computer equipment was obtained for the EW during the first two EPA project years. However, computer management and maintenance continue to be a difficult area. And, under an EPA Project Amendment, four or five additional computers will be obtained for the EW. Thus, during 1992-93, the computer inventory will be updated and the EW Computer Plan revised. Efforts will be made to provide computer maintenance training for one or two EW officers, and major attention will be given to computer management and maintenance.

2.5. Wheat Situation and Outlook

During the first few months of the EPA Project, the Statistical Advisor was responsible for advising the Commodity Situation and Outlook Section of the Directorate of Economic Research. During this period, with the assistance of Bill Spencer on TDY assignment, the first prototype EW Wheat Situation and Outlook Report was produced. The advisory role for the Commodity Situation and Outlook Reporting program was then assumed by the EPA Chief of Party and 1992-93 plans for commodity situation activities are not included in this partial EPA work plan.

2.6. Pakistan Agricultural Sector Model (PASM)

Begun late in the first project year, the PASM activity will continue into 1992-93. Inefficiencies in the farm income data bank and the temporary loss of an officer of the Aggregate Analysis Section, Mr. Nawaz, to graduate training abroad, made updating the PASM from its 1987-88 base year to a 1989-90 base year more difficult than anticipated. However, large improvements in the farm income data base and the development of a PASM User Interface will make future updating of PASM a more manageable task. And initial experiments in using the DAP estimates of producer and consumer subsidy equivalents as GOP policy instruments in PASM were reasonably successful.

The updating of PASM will be completed by the end of December, 1992; one EW officer will be fully trained in the structure, maintenance and use of PASM; the PASM User's Manual will be completed; and a test "wheat policy analysis" will be completed by the end of January, 1993. This will end the EPA

supported development, documentation, improvement and training in the use of PASM. It will then be up to the Economic Wing whether or not it wants to continue using PASM as a needed policy analysis tool.

Steve Davies, the principle developer of PASM, will continue to assist in the completion of the PASM activity.

3.0. DELIVERABLES

The following EPA project deliverables, with the target completion dates indicated, are planned for activities under the responsibility of the Statistical Advisor:

<u>Deliverable:</u>	<u>Target Date:</u>
Annual Work Plan: 1992-93*	July 15, 1992 January 15, 1993 (Revised)
Quarterly Reports*	September 15, 1992 January 15, 1993 March 15, 1993
AGDAT/PC User's Guide	September 1, 1992 May 1, 1993 (Revised)
PASM90 User's Manual	December 30, 1992
Wheat Policy Study	January 30, 1993.
Computer Plan	May 30, 1993 (Revised)
Final Project Report*	June 15, 1993

* These will be partial reports submitted to the EPA Chief of Party covering the activities of the Statistical Advisor.

4.0. SUMMARY

A fair summary statement of the status of the Directorate of Agricultural Statistics is that DAS has an effective and sustainable organization fully capable of accomplishing its PC1 assigned mission subject to the following conditions: 1.) A well trained, experienced Director with good leadership ability be appointed as soon as reasonably possible;

and 2.) The GOP allocate the Economic Wing a sufficient annual operating budget to a.) publish and distribute the core statistical publications and b.) maintain the EW computer systems; and 3.) There is no further reduction in the number of well trained professional officers assigned to the Directorate. EPA activities planned for 1992-93 should add significantly to the DAS capability.

The Pakistan Agricultural Sector Model has the potential for use by the EW as a policy analysis tool, useful in bringing together the important data, economic research and policy information generated across the EW into a comprehensive simulation of the food and agricultural complex with emphasis on GOP policy interventions in the sector. EPA activity planned for PASM during 1992-93 should give the EW an updated, documented, significantly improved version of PASM with one EW officer fully capable of maintaining, updating and using PASM. When Mr. Nawaz and Mr. Sabri return from graduate training at Colorado State University, they should also significantly enhance the EW's ability to use quantitative analytical tools such as PASM in conducting policy analysis.

On the completion of EPA, the EW will have an excellent set of computer systems. EPA will help insure that these computers are in a state of maintenance and that the EW officers have the computer skills to use the computers effectively. The major uncertainty is whether or not the EW will have the financial resources and managerial commitment to maintain the computer systems over time without outside assistance.

APPENDIX I

**THE MISSION, STAFFING PLAN AND JOB DESCRIPTIONS OF
THE DIRECTORATE OF AGRICULTURAL STATISTICS**

APPENDIX I

THE MISSION, STAFFING PLAN AND JOB DESCRIPTIONS OF THE DIRECTORATE OF AGRICULTURAL STATISTICS

The Directorate of Agricultural Statistics (DAS) assembles, processes and disseminates secondary data and develops statistical models for use in forecasting crop area, yield and production. Data are obtained from various National and Provincial departments and organizations. The Directorate develops, maintains, and uses the Agricultural Information Management System (AMIS) as a tool for imputing and processing data in appropriate tables, charts, and graphs for disseminating, on line, to researchers and policy analysts in the Economic Wing and to broader food and agricultural audiences in various statistical publications such as agricultural statistics of Pakistan, an annual publication.

Job Descriptions

Vacant

Director

Under the supervision of the Director General, the incumbent provides leadership and direction to the Directorate of Agricultural Statistics. He is the formal supervisor of all staff in the DAS. In collaboration with his staff, he recommends program of work activities for the Directorate, monitors the accomplishment of work plans, and serves as the Economic Wings principle coordinator for EW responses to staff requests from the Secretary, Additional Secretary, and other MINFA Officials relating to agricultural Statistics. He reviews and approves all EW publications, reports and briefings relating to agricultural statistics and serves as the Director General's principle representative in GOP committee meetings and other forums relating to agricultural statistics, especially with respect to the Agricultural Data Collection Project, Federal Bureau of Statistics.

Sajjad Malik

Research Officer

Under the direct supervision of the Director, DAS, the incumbent conducts special assignments in assembling and processing agricultural statistics. For example, he is currently assembling, checking and imputing into computer spreadsheets, data on Pakistan agricultural trade including exports, imports, unit prices, duties, tariffs, surcharges, etc. Such data is not presently included in the AMIS.

Data Assembly

The Data Assembly Section (DAAS) collects secondary data relating to agricultural land availability and use, manufactured input use, agricultural prices, crop and livestock production, imports, exports, total supply and utilization, agricultural credit, forestry, and fisheries. Data bases are developed, updated, and expanded for imputing into the Data Base Management System (DBMS), a component of the Agricultural Management Information System (AMIS), and checked for accuracy. Major data sources include Provincial Agriculture Departments, the Federal Bureau of Statistics, and other National and Provincial organizations.

Job Descriptions

Taj Muhammad Shah

Statistical Officer
and Liaison Officer

Under the formal supervision of the Director, the incumbent is responsible for the day to day supervision of Officers in the DAAS Section. In addition, he is responsible for the assembly checking and imputing into AMIS, data on minor crops excluding pulses, agricultural prices, land use and related data. Mr. Shah also represents the DAS and EW for special staff requests, the budget, agricultural income tax, and observation and implementation of the principles of policy.

Mujahid Khan

Research Officer

Under the formal supervision of the Director and informal day to day supervision of the Section Liaison Officer, the incumbent is responsible for assembling and checking data on farm inputs, livestock, fisheries, forestry, credit and agricultural machinery. He also represents the Directorate and EW in matters pertaining to area sampling frame, FCA briefs, National Accounts Committee, improvement of statistics, trade statistics, collection of Ushr, country briefs, etc.

Mohammad Akram

Statistical
Assistant

Under the Formal supervision of the Director and informal day to day supervision of the Section Liaison Officer, the incumbent assembles, checks for accuracy, and inputs into the AMIS, data on major crops, pulses, fruits, vegetables and condiments. The incumbent is also responsible for estimating per capita availabilities of crops, the review of

the crop calendar, mill-wise sugar cane crushed and sugar produced, cotton ginning and pressing industry data, world grain statistics, and represents the DAS and EW in matters pertaining to National Productivity Organization and on the procurement of crops. Mr. Akram also provides on the job training to Mr. Mohammad Wasil who assists him in the preceding duties.

Muhammed Wasil

Field Investigator

Under the Formal supervision of the Director and informal day to day supervision of the Section Liaison Officer, the incumbent receives on the job training from and assists Mr. Akram in assembling, checking for accuracy, and imputing into the AMIS, data on major crops, pulses, fruits, vegetables and condiments, mill-wise sugar cane crushed and sugar produced, cotton ginning and pressing industry data, world grain statistics, reviewing the crop calendar, in estimating per capita availabilities of crops, and representing the DAS and EW in matters pertaining to National Productivity Organization and on the procurement of crops.

Data Processing and Forecasting

Data Processing

The Data Processing Section (DAPR) develops, maintains and provides training relative to the Agricultural Management Information System (AMIS) which has been designed to include crop production system, procurement and disposition, weather, prices and publication systems for the Economic Wing. The Section publishes Agricultural Statistics of Pakistan, Pakistan Agricultural Chart Book, Fruit, Vegetables and Condiments Statistics, and Crop, Area and Production Statistics by Districts, as well as occasional statistical publications. AMIS will be expanded to generate standard data forms such as commodity supply and utilization accounts, farm inputs, economic accounts for agriculture, farm costs and returns, farm income, marketing margins, Pakistan agricultural trade, the food and agricultural marketing bill, producer and consumer subsidy equivalents, and other analytical forms specified by the Economic Research and Agricultural Policy Directorates.

Data Forecasting

The Data Forecasting Section (DAFO) develops crop forecasting models in cooperation with other sections of the Economic Wing. Using such models and current values of exogenous variables, it makes routine forecasts of area, yield and

production of wheat which will be later extended to rice, cotton and other major and minor crops.

Job Descriptions.

Abdul Rashid

Liaison Officer and
Research Officer

Under the supervision of the Director, DAS, the incumbent is responsible for supervising the officers of the combined Data Processing and Data Forecasting (DAPF) Sections in processing all statistics assembled by DAS. This includes developing, documenting, using, and providing training on the Agricultural Management Information System (AMIS), the preparation for publication all statistics published by DAS, and providing late winter forecasts of the area, yield and production of wheat in Pakistan. In addition to his broad supervisory responsibilities, Mr. Muhammed is personally responsible for maintaining and using the crop production system of AMIS and the wheat forecasting model.

Mrs. Nighat Alam

Research
Officer

Under the formal supervision of the Director, DAS, and Liaison Officer, DAPF, the incumbent maintains the weather information system and its data bases: rainfall, temperature and canal withdrawals.

Fayyaz Ahmad

Research
Officer

Under the formal supervision of the Director, DAS, and informal day to day supervision of the Liaison Officer, DAPF, the incumbent maintains the agricultural prices system and the procurement and disposition system.

Yousaf Haleem

Research
Officer

Under the supervision of the section Liaison Officer, the incumbent is responsible for data processing functions including maintaining and operating the AMIS Publications System, the use of graphics software including Gallery, and the preparation of slides, charts, graphs, etc.

Mohammad Younus

Field
Investigator

Under the supervision of the section Liaison Officer, the incumbent assists Mr. Yousaf Haleem in data processing functions including maintaining and operating the AMIS Publications System, the use of graphics software including Gallery, and the preparation of slides, charts, graphs, etc.

Mohammad Ramzan

Statistical
Assistant

Under the formal supervision of the Director, DAS, and informal day to day supervision of the Section Liaison Officer, DAAS, the incumbent assists, and receives on the job training from, Mr. Aleem Khan in preparing FAO questionnaires, assembling data for the Economic Survey; and in representing DAS in matters pertaining to the Annual Development Program, Five Year Plans, National Assembly and Senate questions, trade policy, implementation of the development programs in the agriculture sector, external assistance and technical cooperation in agriculture, meetings of economic research committees, SAARC press cuttings, mid- plan review, Standing Committee of National Assembly on Food and Agriculture, International Fund Agricultural Development, and the National Economic Council.