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Quarterly Report
October - December 1990

Agricultural Sector Support Project
Private Sector Agribusiness

Development Alternatives, Inc.

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AGRICULTURAL SECTOR SUPPORT PROJECT
PRIVATE SECTOR AGRIBUSINESS

Quarterly Report
October - December 1990

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Private Sector Agribusiness

Information Unit ASSP/PSA

May 1991

Development Alternatives, Inc.,
4 A-C Park Avenue, University Town, Peshawar, Pakistan

QUARTERLY REPORT

FOR THE

AFGHANISTAN AGRICULTURAL SECTOR SUPPORT PROJECT

PRIVATE SECTOR AGRIBUSINESS
ASSP/PSA

UNDER CONTRACT TO THE

OFFICE OF THE AID REPRESENTATIVE FOR AFGHANISTAN

CONTRACT NO: 306-0204-C-00-9829-00

OCTOBER - DECEMBER 1990

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March, 1991

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INTRODUCTION

Prior to emergency departure in the middle of January, ASSP/PSA was moving strongly into training for the ADT component, trade fairs and new arrangements for the marketing of commodities and improved information collection for planning.

Two highlights of the quarter were the PSA sponsored trade fair at Nasirpur (Peshawar) and the beginning of a major training program for ADT staff. The trade fair brought manufacturers of Pakistani equipment together with potential purchasers of wholesale lots for resale in Afghanistan. The impact of the trade fair in terms of additional trade in agricultural commodities will be reported on in the next quarterly report.

ADT training during the winter months is an important element in establishment of an extension facility within Afghanistan. Forty-three extension staff traveled to Peshawar to begin the course which would take them to major agricultural facilities throughout Pakistan as well as provide refresher work on extension techniques.

Financial mechanisms which would allow the project to support private sector activity in Afghanistan were a primary focus of effort for ASSP/PSA through the quarter. The complexity of these arrangements goes far beyond simple agreement definition of a program. It was apparent as discussions continued that Pakistani banking and financial laws will control the modes and extent of arrangements. The results of investigations into the state banking systems' regulations as they have been changing under a new government will be presented in the next quarter.

New data bases have been set up for use by the project. The Geographic Information System has been expanded and further information input for among other uses, the analysis of export crop production areas and irrigation zones. The database is almost mature enough to begin providing hard, detailed analysis for planning purposes.

The Marketing Information System (MARIS) is also under development with assistance from GIC. Testing of the system developed in November and December was on the agenda for the first quarter of 1991.

I. COMPONENT: PROGRAMMING, PLANNING, AND ANALYSIS (PPA)

For the period from October 1 to December 31, 1990, the Programming, Planning and Analysis component of the ASSP/PSA worked with the following activities:

- GEOGRAPHIC INFORMATION SYSTEMS (GIS)
- MARKET INFORMATION SYSTEMS (MARIS)
- MONITORING
- NEW PROJECT DEVELOPMENT

A. GEOGRAPHIC INFORMATION SYSTEM

Kevin Howald and **Johanna Eversole** from the Earth Satellite Corporation (EarthSat) came to Peshawar to set up the GIS system and equipment: two 386 computers, two digitizing tablets, one plotter and other accessories.

Four ASSP staff members received training in GIS technology from October 21 to November 15, 1990. They were trained in geographic and GIS concepts, particularly in the software PC ARC/INFO. They studied the concepts of topology, layering of data, overlay analysis, scale and map measurements, map design and production, data manipulation, modeling and editing techniques of the software. The trainees were evaluated at the end of the course; two of them were selected to work in the GIS lab as long term staff members of PPA.

Road and canal coverage for 34 maps (out of a total of 40 which had been ordered for 1990) had already been digitized by EarthSat in the United States. This digitized coverage includes six types of roads, together with above and underground canals and water streams. Afghanistan's province and district boundaries (from UNDP) were also incorporated in the computers.

The GIS team in Peshawar digitized the remaining six maps incorporating roads and canals into the project data base. This data base now contains the following data covering an area of Afghanistan defined by 40 topographical sheets:

- province codes and names;
- district codes and names;
- total population, (pre-war);
- current population in place; and
- approximate total of refugees in Pakistan and Iran.

The GIS staff also produced field maps of Sawkae in Kunar province, Shah Juy, and Kandahar to be used on field trips to these areas by PPA monitors and Engineering Services for Afghan Reconstruction (ESAR) survey staff. The data for these maps was derived from 1:100,000 scale Afghanistan Topographic Map Series. In addition, the GIS unit produced a series of cartographic outputs for various clients. These maps showed routes the PPA surveyors followed in Afghanistan, assorted transportation routes from Sheikabad to Kabul, wheat prices in different provinces of Afghanistan, elevations in the area of Kunar and major roads, cities and provincial capitals of Afghanistan.

Finally, the GIS Unit held demonstrations for various USAID, NGO and GOP senior officials to explain the potentials of PC ARC/INFO and the utility of GIS as a planning tool.

B. MARKET INFORMATION SYSTEMS (MARIS)

During this quarter, the activities of MARIS concentrated on the development and extension of the data collection system to points inside Afghanistan. The four primary areas of activity included:

- design and testing of a data collection system that directly monitors border and Afghan bazaar commodity prices and transport costs;
- redesign of the MARIS database using upgraded software to accommodate expanded data collection;
- design of a prototype monthly Afghanistan Agricultural Price Circular; and
- collaboration with the GIS component to explore the presentation of price data and the development of sampling frames for future survey work.

These activities are the result of the on-going review of MARIS's ability to meet the needs of the other ASSP/PSA components for timely and accurate market price information. These activities represent an expanded approach to data collection.

First, MARIS data collection has been expanded to include vegetable oil and ghee, rice, diesel and petrol, a variety of phosphate fertilizers, various grades of raisins, pomegranates, and dried apricots, and transport costs between market centers in eastern Afghanistan and border points in Pakistan. The data collection system now has four categories:

- retail costs of basic food commodities;
- retail costs of basic agricultural inputs;
- wholesale costs of certain dried and fresh fruits exported from Afghanistan; and
- freight costs and exchange rates.

The addition of wholesale prices of dried and fresh fruits is a response to ASSP/PSA initiatives to support the production, processing, and export of these value-added items.

Second, MARIS data collection is now focused on collecting prices at specific bazaars in the project area in eastern and southern Afghanistan, together with freight costs between bazaars. The first phase of extending data collection inside Afghanistan began from the Quetta area. ASSP/PSA staff based at the Quetta Trade Center and Field Office, as well as PSA bazaar representatives stationed in Kandahar and Zabul Provinces, are participating in the collection of data at specific bazaars (Khawja Mulk, Shah Juy, and Chaman) and wholesale markets (Kandahar, Quetta). Transport data is collected by informal interviews with truckers and freight forwarders. Price data is collected on a bi-weekly basis and transport data is collected monthly. Data is transmitted to Peshawar monthly. Based on the Quetta experience, a similar data collection approach is being designed to cover the Peshawar and Kabul areas.

Initially, the combination of point price and transport data provides a perspective on market margins and the costs of transport and handling goods moving into and out of Afghanistan. When time

series of monthly data have been collected, seasonal trends, inflation, and disruptions to specific bazaars can be identified. Both types of information will contribute to strategic planning for the ASSP/PSA project.

Using an updated version of Dbase database software has increased the capability and utility of the MARIS database. Ease of data entry and tabular presentation of data have been enhanced, and the database system has been tailored for expanded data collection.

One of the planned outputs from the expanded bazaar-level data collection system will be a monthly agricultural price circular. This circular will focus on regions and commodities of interest to the project and provide a unique monthly record of price movements and freight costs inside Afghanistan. The agricultural price circular will be distributed in-house and to interested development organizations.

In addition to data collection, MARIS has worked closely with the GIS component of PPA in the initial phases of bazaar surveys and mapping. Building on preliminary mapping exercises in Shah Juy and Khawja Mulk, MARIS will now work with GIS to develop sampling frames for more specific surveys of fertilizer use and demand.

In addition to these new initiatives, the routine collection of exchange rate data in Peshawar and price data for basic commodities was continued for all 29 provinces of Afghanistan. A quarterly report presenting this data for July through September, 1990, has been completed, and a quarterly report for October through December is being prepared.

Finally, **Michael Bertelsen**, a consultant to ASSP/PSA from GIC, Inc., visited the project during the month of December. He worked with MARIS staff on the design and expansion of the MARIS data collection system, together with initial phases of survey design.

C. MONITORING

Monitoring continued to be an important part of the work of the Planning Unit. To supervise the 15 Afghan field staff, additional supervisory staff were added to PPA. There are now three non-American monitors who are working with the project and who are authorized to travel to Afghanistan to supervise and assess cross-border activities. One of these monitors, **Xavier Bouan**, has been working with the project for almost one year.

Two additional European expatriates, **Michael Foerderer** and **Bert Bosch**, joined the PPA unit in October, and two senior Afghans, **Ajmal Hussain** and **Abdul Ghafary**, joined the unit at the end of this quarter. Ajmal recently returned from the United States after attending a six-week management training program under the auspices of ASSP/PSA.

Monitoring continued to be a very staff-intensive activity for PPA. During this quarter, nearly 1.5 person years of staff time was devoted to cross-border travel. This included 287 person days of travel by 11 Afghan PPA field staff, plus 57 days of travel time by supervisory staff, for a total of 344 person days during this period. These six trips are described in Appendix 1.

At the end of November a training course was designed for the PPA Afghan monitors and surveyors. This training program will begin in January 1991 and continue until April 1991. It will cover such topics as survey report writing and debriefing process, data collection and sampling techniques, qualitative interviewing techniques and field math and statistics.

D. NEW PROJECT DEVELOPMENT

The Programming, Planning, and Analysis component sometimes serves as an in-house laboratory for the development of new activities for the entire project. To this end, animal husbandry and a media center were established.

1. Animal Husbandry

In November a previous livestock program was revised. This resulted in the revision of an earlier poultry scheme and postponed the scheduled shipment of Fayoumi chicks into Nangarhar Province. It also led to the design of a program to introduce phosphor lick blocks to Wardak, Loghar and Kandahar provinces. These lick blocks are intended to solve the problem of phosphor deficiency in ruminants. At a pilot level, it is believed that this fits into ASSP/PSA's priorities for introducing commercially viable products to Afghanistan with high market potential. After internal discussions and demonstrations in certain areas, 12,000 of these blocks were ordered for distribution and sale inside Afghanistan.

Furthermore, contacts were established with several NGOs specializing in cross-border veterinary activities. Project staff were also in contact with wholesalers of veterinary medicines to investigate the feasibility of introducing other animal health products. An expanded program for the livestock sub-sector is under preparation.

2. Media Center

PPA purchased four video camcorders and trained PPA Afghan monitors and ESAR surveyors in their use. This equipment has been used extensively during the monitoring trips this quarter to graphically portray the reality of the field situation for Peshawar and Islamabad staff, who cannot currently travel to Afghanistan. Limited amounts of this raw footage have been then edited for use outside DAI/ASSP offices.

More staff and additional equipment are needed to expand the ASSP/PSA media center's capabilities. Other project components are eager to use these cameras to produce films to use as training, to promote the project and advertise the usefulness of our commodities.

II. COMPONENT: PRIVATE SECTOR AGRIBUSINESS (PSA)

During the third quarter (October - December, 1990), the Private Sector Agribusiness (PSA) component's activities concentrated in six areas. These included:

- IMPROVED WHEAT SEED LOGISTICS AND MARKETING
- FINAL FERTILIZER SALES
- TRADE FAIR
- PL-480 WHEAT SALES
- PLANNING
- RECRUITMENT

A. IMPROVED WHEAT SEED LOGISTICS AND MARKETING

In early 1990 ASSP/PSA ordered 1,000 tons of improved wheat seed for sale and/or distribution in Afghanistan. The project initially allocated 500 tons to PSA, 300 tons to Agriculture Development and Training (ADT) and 200 tons to MCI, an NGO working out of Quetta in Southern Afghanistan. The project subsequently increased PSA's allocation to 548 tons and lowered ADT's accordingly.

Following AID/REP approval in September, PSA staff in October negotiated agreements with eleven Afghan traders for sale and distribution of 548 tons of wheat seed in several northern provinces in which improved wheat seed has hitherto not been available. PSA allocated the remaining two tons to a trader from Wardak. The agreements specified a purchase price of Rs. 3,500 per ton; ASSP/PSA agreed to rebate Rs. 8,000 per ton to cover shipping costs. In addition, PSA made fertilizer available to the traders under the same terms as were in effect during the fertilizer marketing program in earlier months. Allocation of seed and fertilizer was as follows:

DESTINATION	NO. OF TRADERS	QTY SEED	QTY FERTILIZER
Kunduz	5	204 T.	112 T.
Baghlan	3	196 T.	94 T.
Samangan	2	98 T.	---
Balkh	1	50 T.	---
Total	11	548 T.	206 T.

Convoys, accompanied by project monitors, left Peshawar during the months of October and November. They were able to proceed only as far as PSA's Bazaar Office in Sheikhabad, Wardak, which is approximately 40 Km. from Kabul. From that point, there are two possible routes across the Hindu Kush. One, through Kabul, was closed by the recent guerilla blockade of the capital; the other, through Bamiyan province, was effectively shut by a combination of internecine fighting, mined roads and bad weather. PSA and the traders approached the blockading forces through a variety of intermediaries in the hope of receiving a laissez-passer for the traders. None of the intermediaries was successful.

PSA's initial response was to urge traders to warehouse the seed in or near Sheikhabad until spring and then ship it north for planting at that time. ADT and Dr. Azam Gul of the Swedish Committee, argued against this on the grounds that the variety in question, Pak-81, is much more effective when sown in the fall. Based on these recommendations, ASSP/PSA senior staff decided that PSA should repurchase the seed from the traders and warehouse it in Afghanistan until it could be used in the fall of 1991. During the intervening months, PSA and ADT would devise a strategy for distribution in the northern provinces.

A joint PSA/PPA team traveled to Sheikhabad in early December. They identified a potential warehouse in the nearby town of Saidabad. A second team planned to return to Saidabad in early January to lease the warehouse and make any necessary improvements.

During December, PSA negotiated agreements with the traders for repurchase of the seed. These included refund of their purchase price of Rs. 3,500 per ton and compensation for their transport and storage costs at the rate of Rs. 3,150 per ton.[1] The Rs. 8,000 per ton rebate of transport costs north of the Hindukush that was agreed to earlier would not, of course, be paid.

The results of germination tests run by ADT and independent research institutes (as well as ADT's initial field trials) have further complicated the wheat seed situation. Significant quantities of seed have shown low germination rates in the range of 8 - 12 percent. At the end of the quarter, PSA staff members were in the process of collecting samples of the seed already shipped to Sheikhabad, a matter made difficult by snow and inability to travel. PSA will turn the samples over to ADT for analysis. Should the seed prove to be substandard, it will be necessary to destroy it.

B. FERTILIZER SALES

PSA concluded the fertilizer marketing effort that began in August (see July - September Quarterly Report). The terms of sale remained the same, with pricing based on the current Pakistani price and PSA rebating transport costs as far as project-operated Bazaar Offices inside Afghanistan. Preliminary figures for fertilizer sales (including those in conjunction with seed listed above) were as follows:

FROM PESHAWAR		FROM QUETTA	
DAP	806 MT	DAP	31 MT
Urea	490 MT	Urea	122 MT

[1]The established transportation rebate to Sheikhabad, based on competitive bids, is Rs.2800 per ton. The additional Rs.350 was to compensate the traders for unanticipated and handling costs.

C. TRADE FAIR

PSA hosted the first Afghanistan - Pakistan Agricultural Trade Fair at its Nasirpur warehouse facility in Peshawar on November 18 - 22. The objective was to bring together Pakistani vendors of agricultural machinery and equipment with Afghan traders. Staff members and a consultant had begun planning for this and for a proposed Quetta Fair in late summer. Vendor evaluation and recruitment, logistics arrangements and publicity commenced in September and carried into the third quarter, consuming greater quantities of component man-hours as November approached.

Drawing on consultants' recommendations, PSA invited 16 key Pakistani manufacturers of agricultural machinery and equipment to exhibit. Of those invited, 13 participated and demonstrated their products. These products included tractors, threshers, reapers, seed drills, tillers, harrows, plows, etc. In addition, both ASSP components, PSA and ADT had booths in which they explained their programs and exhibited improved seed, chemicals, sprayers, tools and chickens. ASSP/PSA made use of a variety of project-prepared videotapes to further explain the project and to demonstrate modern agricultural techniques and types of machinery.

ADT, in coordination with Millat Tractors (the Pakistani licensee of Massey Ferguson), held twice daily demonstrations of agricultural machinery on a plot adjacent to the fair facility. These included tractor operations with a variety of implements and demonstrations of several types of threshers.

PSA began publicity for the Fair several weeks prior to the opening. Peshawar Trade Center staff put up posters throughout the North West Frontier Province and in contiguous areas of Afghanistan as well as placing advertisements in the Pushto press. In addition, word of mouth played a large role: publicity was generated through personal contacts with Afghan traders, NGOs, the Afghan Interim Government and various official Pakistani organizations.

The Fair attracted approximately 1,500 visitors. These included Afghan traders and farmers, functionaries of the Afghan Interim Government, guerrillas, Pakistani government officials, NWFP Ministry of Agriculture personnel and agriculture students, Pakistani merchants and NGO representatives. The Home Secretary of NWFP and Dr. Abdul Wakil, former Afghan Minister of Agriculture and Senior Advisor to ASSP/PSA, gave opening addresses on the first day.

PSA held daily raffles, open to Afghan visitors. Staff members interviewed everyone seeking a raffle ticket and filled out an information sheet. Slightly more than 400 individual Afghans were surveyed. Approximately one third were active in cross-border trade between Afghanistan and Pakistan; another third described themselves as farmers; and the rest included students, refugees and guerrillas. Four visitors won knapsack sprayers in the raffle.

So far as PSA is aware, no Afghan traders placed orders at the Fair. This is the result of several factors. First, the Fair was held some six months prior to the beginning of the period of peak demand for agricultural machinery. Second, most traders seemed more interested in gathering information rather than actually purchasing at this time. Finally, the blockade of Kabul and the resulting difficulties in transporting any goods appears to have put a damper on trade in general.

D. PL-480 WHEAT AUCTIONS

PSA continued the PL-480 pilot commercialization program (see earlier Quarterly Reports) by conducting an auction for 5,000 metric tons of wheat in Quetta on October 22. Staff members opened 57 bids from traders whose home provinces included Helmand, Kandahar, Zabul, Ghazni, Logar, Kabul and Samangan.

All bids were well above the floor price of Rs. 293 per 100 Kg. bag and ranged from a low of Rs. 301 up to Rs. 345. The winning bidders were a consortium from Shah Juy in Zabul Province headed by Haji Abdul Sattar.

Following the auction, the Balochistan Food Department informed PSA and Haji Sattar that the 5000 tons of wheat were unavailable. (PL-480 wheat enters the Pakistani distribution network and is drawn from by AID from government warehouses). It was nearly one month before O/AID/REP and various Pakistani government bodies resolved the issue and determined that the wheat was actually in the warehouse.

Although PSA does not as yet have detailed information concerning final destinations of wheat inside Afghanistan, it appears that traders shipped the bulk to Kandahar, Zabul and Oruzgan. If so, this would be a departure from the earlier auction when most of the wheat was sold in Kabul. Traders maintain that potential profits are highest in Kabul. However, the blockade is effectively closing off that market and they are obliged to sell in secondary, though lucrative, areas.

E. PLANNING

PSA planning activities (carried out in coordination with PPA) concentrated on mechanisms for strengthening sales and marketing networks inside Afghanistan. They included development of an implementation plan for the establishment of depots along the frontier between Afghanistan and Pakistan and assignment of specific tasks to members of the component. Further planning activities concerned setting up Afghan-owned, project-assisted dealerships for agricultural machinery and equipment inside Afghanistan.

F. RECRUITMENT

During the month of December, PSA began a major recruitment exercise with the objective of bolstering its presence inside Afghanistan. Staff began to put together job descriptions and to identify 40 to 50 qualified Afghans who would be invited to participate in a training program tentatively scheduled for March and April of 1991. New personnel will be based in existing or anticipated Bazaar Offices and will assist prospective distributors of agricultural inputs in Afghanistan, carry out fertilizer marketing activities and handle liaison with other ASSP/PSA components.

III. COMPONENT: AGRICULTURAL DEVELOPMENT AND TRAINING (ADT)

The activities of ADT component are be reported in the following order:

- STAFFING
- FIELD ACTIVITIES AND TRAINING
- SEED MULTIPLICATION
- MACHINERY
- HORTICULTURE
- LOCUST CONTROL PROGRAM
- POULTRY AND ANIMAL HUSBANDRY
- PROCUREMENT
- PLAN OF FUTURE ACTIVITIES

A. STAFFING

A major objective of the ADT component is training extension agents to transfer suitable technologies from Pakistan and elsewhere to the Afghan farmer. ADT has searched for competent and experienced staff to satisfy this objective and made significant progress during the quarter in bringing good staff aboard.

Mr. Mohammadullah Obaidi (MSc Agronomy, USA), former Deputy Minister, Ministry of Mine and Industry (AIG), joined the ADT component in November, 1990. His responsibilities include coordinating and monitoring all logistics and finances related to the ADT training program currently in progress. **Mr. Ghulam Sakhi Firaq** (BSc Agriculture), former Director General of Extension Services in Helmand Province, was hired as an agronomist for the Peshawar office in October, 1990.

Mr. Abdul Majeed (BSc, The College of Agriculture),and **Mr. Mohd Arif** and **Mr. Shir Ahmad**, graduates of The Agricultural Institute, have been hired as extension agents for Kandahar and Zabul provinces. They participated in the winter Agricultural Extension Training program.

Sometimes good staff are hard to hold in Peshawar; in December, 1990, **Mr. Mohammed Daud**, head of ADT's Plant Protection section, left DAI for the USA; and **Mr. Mohammed Sofi**, head of ADT's Agronomy section, left for Australia.

B. FIELD ACTIVITIES AND TRAINING PROGRAMS

1. Field Activities

Extension agents have continued to conduct practical farm based testings and demonstrations, including demonstrations of available small farm machinery. They have demonstrated the establishment of good fruit orchards; protection of high value horticultural crops from insects, diseases and nutrient deficiencies; and improved orchard management as well as inter-cropping vegetables in new orchards.

In addition, they have used field days to bring the farmers together and view the work of progressive farmers and have utilized the opportunity to teach farmers the means of obtaining agricultural inputs through commercial systems.

In several provinces, extension agents have prepared a number of demonstration plots on farmers' land to show the effects of fertilizer application on potatoes and corn. Appendix 2 shows the yield increases per unit area.

2. Training

A comprehensive in-service training program for 43 agriculture extension staff, 20 tractor/thresher operators, and eight nurserymen began in mid-December, 1990 and will continue through February, 1991.

Agriculture Extension Staff Training

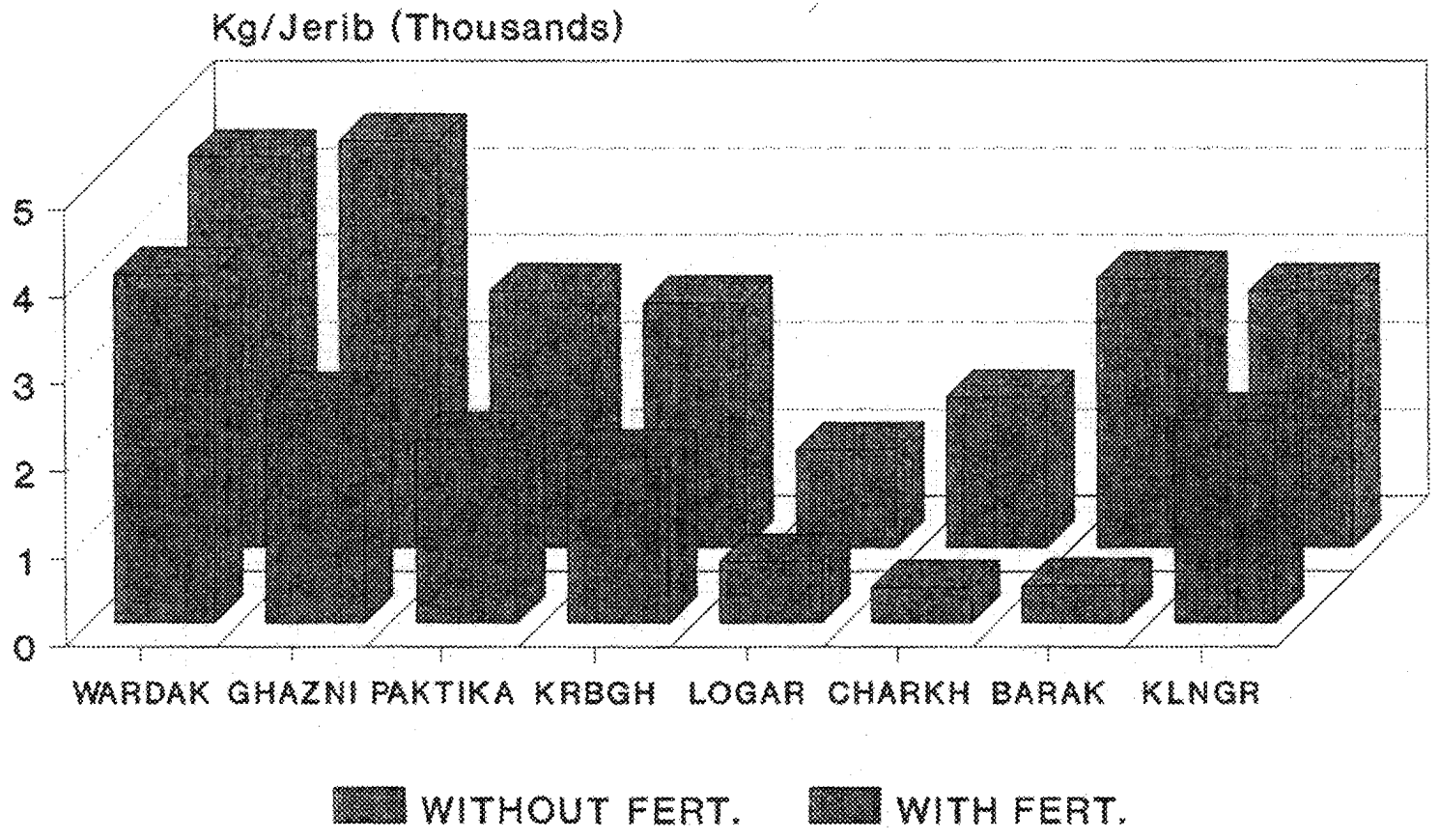
The goals of the training for the extension staff are:

- review of subject matter pertinent to the participants' job responsibilities;
- presentation of new technical information which will allow more participants to perform their jobs more effectively and with a broader scope;
- introduction of the concept and implementation scheme for the Farmer-To-Farmer Mobile program to be introduced in selected provinces in Afghanistan; and
- presentation of concepts and information relevant to potential project components in order to stimulate interest among ADT staff.

Agriculturists from both the Afghan and Pakistani communities are providing oral and written presentations in relevant subject areas. Written materials will be translated into Dari and Pushto for distribution to all ADT staff, and Pushto copies will be given to the Pakistani agricultural community for distribution among Pushto speaking agriculturalists. Efforts have been made to insure that most of the 270 hour course represents field-based training and demonstration.

By the completion of the training program, **Agriculture Extension Workers (AEWs)** will have visited three major Pakistani agriculture research stations to participate in discussions and observe current trends in wheat, maize, poultry, and small vegetable production; sugar beet/cane processing; and plant protection. They will have observed Pakistan's Farmer-To-Farmer Visitation program and will participate in presentations on Agriculture Extension Education to learn new ideas for encouraging and supporting farmers in their home areas.

YIELD INCREASE IN POTATO
DUE TO USE OF FERTILIZER



Source : Appendix 2

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The Agriculture Development Bank of Pakistan is providing a comprehensive presentation in cost effective analysis of all small farm machinery available locally, and a tour of its demonstration plots in wheat, rice, maize, small vegetables, horticulture, and large and small animal husbandry. Brief presentations and field visits in agriculture, agro-forestry and irrigation have also been included.

On alternate weekends, AEWs work in one of two nurseries maintained by the ASSP/PSA. Here they receive field based training to update their horticulture knowledge and skills, while providing manpower support to ASSP/PSA horticulture initiatives.

Tractor and Thresher Operator Training

Tractor and Thresher Operators will complete a three-week course sponsored by Millat Tractor, Ltd., in the operation, routine maintenance, and basic repair of the most commonly used tractor in Afghanistan, the Massey-Ferguson 240. The operation, maintenance, and repair of other small farm machinery will be offered in a four-week course presented by the Government of Punjab's Pak-German Project in Multan.

Nurserymen will work in the two ASSP/PSA nurseries from mid-December to February, when they will return to Afghanistan with all other field-based ADT staff. Several individuals will be recruited for training in fruit drying; International Multifoods, a local company, has been identified to provide this training.

Tractor/Thresher Operators will return to Peshawar in May, 1991, for more field practice in operating and maintaining small farm machinery used in Afghanistan. The **AEWs** will return to Peshawar for two weeks in mid-August for further in-service training in the Farmer-To-Farmer Program, rice production, and agriculture extension/training methodologies.

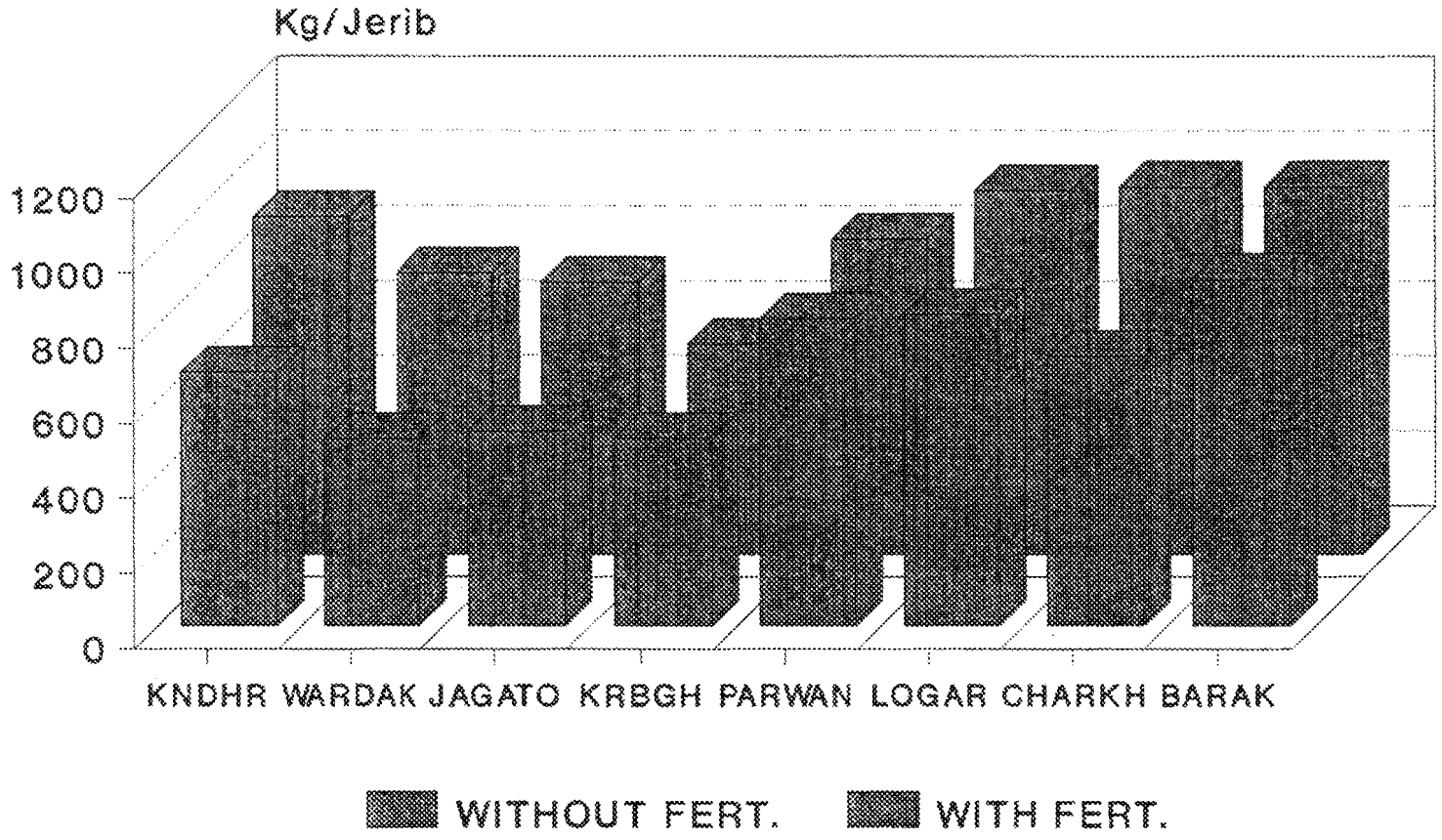
Peshawar-based ADT Staff continue to participate in staff development courses. They have provided logistical and technical support to the field staff training program and participate in sessions whenever possible. All are scheduled to participate in an Agriculture Statistics course run by Save the Children (UK) in March, 1991. Additionally, all Peshawar-based staff have been surveyed regarding US/Third country training interest; this information is being used to plan accordingly.

C. SEED MULTIPLICATION

Improved wheat seed varieties from Pakistani agricultural research stations have been tested in Afghanistan, and specific varieties have been recommended for use in areas of Afghanistan having similar environmental conditions to areas where the varieties are used in Pakistan.

One eighty Metric Tons (MT) of improved wheat seed were distributed to contract farmers on a credit basis. However in 1989, most farmers did not repay loans on contracted seed at the 70 Kg/Jerib asked by ADT, maintaining that '...all other NGO's distribute agricultural inputs free of charge...'. Therefore, although the ADT objective to distribute improved varieties was accomplished, this seed multiplication strategy required evaluation and revision due to the high rate of default on loans. Thus, this year certified seed and improved wheat seed, along with fertilizer were distributed mostly on a cash basis. Extension agents involved in cash sales of certified seed and fertilizer to farmers have requested a better system of distribution in order to avoid the difficulties and risks associated with cash sales. They have expressed a desire to concentrate on working with the farmers in the field rather than focusing on cash sales of agricultural inputs. Appendix 3 shows the amount of fertilizer and seed distributed by ADT extension agents.

YIELD INCREASE IN CORN
DUE TO USE OF FERTILIZER



Source : Appendix 2

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ADT believes that more than 1000 MT of improved seed were saved from last year's harvest and were planted for the next crop year. Because of an apparent quality control problem with the certified seed (Pak 81) purchased from Cargill, it is premature to predict a good harvest for the crop planted from this consignment.

Reports from Logar, Ghazni, Wardak and Paktika provinces indicate that the winter wheat variety Bezostaya is not liked by the farmers because of its low yield, dark grain color and stiff straw. The Agricultural Section of the Swedish Committee for Afghanistan (SCA) suggested that Bezostaya be replaced by varieties developed for higher elevations. Based on tests performed by the SCA, Ataya (85), a variety from Spain, was found to be more suitable for the higher elevations of Afghanistan.

Through the CYMMIT office in Islamabad, DAI purchased one ton of certified Ataya (85) seed from Spain. However, the seed reached Peshawar in November which was too late to be sent to the high elevation areas for planting this season. In order to avoid damage from storage, and to speed up the multiplication process, arrangements were made with the Swedish Committee to sow this seed in Pakistan. It was sown in Swat District (NWFP), and the anticipated 15-20 MT yield will be split between DAI and SCA for studies during 1991-92 winter planting.

Approximately 30 MT of Pak (81) has been given to Backwa District, located among Helmand, Farah, Neemrooz and Herat Provinces. The objective is to spread the improved variety to a wider area. ADT hopes that the poor quality seed already present there will not jeopardize this endeavor.

To ensure that all varieties of seed are able to produce their maximum yield, the ASSP/PSA agronomists conducted training for field extension agents in various farming methods. These courses stressed methodologies that would encourage farmers to practice the package of inputs for better crop management. Some of the subjects taught were: good seed bed preparation; use of improved seed varieties; fertilizer application (nitrogen & phosphate); sowing at optimum times; adequate irrigation; weed control; and proper time of harvesting and threshing.

The field extension agents also contacted a group of farmers receiving improved seed for multiplication. They have collected information about yields of improved versus local varieties of wheat and have asked farmers for their comments. Most farmers feel that the Pirsabak 85 is superior to others used. However, this variety is not at the top of the list in this comparative study illustrated in Appendix 4. The discrepancy may indicate deficiencies in the research design and methodology employed by extension agents. Farmers preferred Pak 81 as the variety of second choice, and they expressed a dislike for the Bezostaya citing reasons previously mentioned.

D. MACHINERY

ADT's objective regarding farm machinery is to increase the demand for agricultural machinery and equipment as a means of increasing agricultural productivity. This machinery will replace the lost animal and manpower caused by prolonged fighting. In order to achieve this objective, ADT staff have introduced, tested and demonstrated various kinds of machinery.

Twelve Massey Ferguson 240 Tractors along with moldboard plows, disk harrows, tine tillers, trailers, and fixed hitches were sent to Logar, Helmand, Kandahar, Ghazni, Wardak, and Paktika provinces. Four more tractors with attachments will be sent to Afghanistan in early 1991 upon completion of the ADT training program currently in progress.

Threshers from five different well-known manufacturers were sent to Logar and Paktika provinces for field testing. There, experienced ADT thresher operators conducted tests and compiled results (Appendices 5 and 6). The Batala threshers preformed the best and will be observed in 1991 also.

Six corn Shellers--two Power Take Off (PTO) driven and one hand operated --were sent to Afghanistan for testing purposes. Appendix 7 presents the results of testing these corn shellers over a harvest season.

Tractor-mounted Reapers have been demonstrated in Helmand, Kandahar, Logar, Ghazni and Wardak provinces. One **walk-behind reaper** was sent to Logar province. Because this proved to be very popular among Afghan farmers, ADT is considering increasing the number of walk-behind reapers and demonstrating it in several provinces.

E. HORTICULTURE

Instructions regarding the distribution of 150,000 apple trees from Quetta, 16,000 trees from Swat and 8,000 apple rootstocks from Darrah were given to extension agents in Logar, Ghazni and Wardak in November 1990. These trees will be distributed in Spring, 1991. Farmers requesting trees for commercial orchards have been selected, the land for these orchards chosen and tree holes dug. Contracts between the landowners and the ADT representative will be signed prior to the delivery of the trees.

Grafted apple trees (16,000) from Swat and rootstocks from Darrah nursery have been lifted, pruned, bundled, and packed in boxes. They are ready to be placed in cold storage until distribution in the spring. Three thousand rooted Shindukani Ayata and Speen Karhmish grape cuttings were shipped from Maroof to Peshawar. They will be sent with the apple trees to Logar, Ghazni, Wardak and Paktika for field testing.

Nurserymen from Logar, Ghazni, Wardak and Maroof were taken to Swat and Darrah nurseries to shape and prune the permanent trees in the nurseries and to develop additional nursery management skills. During this quarter, ADT nurserymen planted 932 Kgs of fruit and wood seeds on 67.5 jeribs of land in four provinces in Afghanistan. Additionally, ADT nurserymen grafted 53,539 trees. Details by province are given in Appendix 8.

F. LOCUST CONTROL PROGRAM

Twenty-two ADT trained extension agents travelled from Pakistan to Afghanistan this quarter. Their arrival in Badghis province before the heavy snow falls ensured they would be in place for the spring hatching of the locusts. The extension agents sought the local farmers cooperation in developing a plan of action to rid infected areas of locusts. In late November, two groups of ADT extension agents began surveying and marking sites in the province. Malathion, batteries, medicine, protective clothing and sprayers were shipped and stored in Badghis awaiting the start of the project in April 1991 depending on weather conditions. A trained environmental and health monitoring specialist also accompanied the extension agents to oversee the use of chemicals.

G. POULTRY AND ANIMAL HUSBANDRY

1. Poultry

In the fall, ADT initiated a pilot poultry project in Khogyani district of Nangarhar province as a means of increasing the protein in the Afghan diet. ADT selected Egyptian Fayoumi chickens for this pilot

project because they are excellent scavengers and adaptable to different climates.

Before beginning, ADT staff identified interested farmers, selected distribution areas and determined the maximum number of chicks per family. In October, 2,000 eight-week old chicks were sent to Khogyani District. A fee of Rs. 20, later reduced to Rs. 15, was charged to interested individuals to avoid the rush associated with free distribution of commodities. According to the reports from poultry staff, the distribution was unsatisfactory but ADT recommends this program be further tested in March-April, 1991.

2. Animal Husbandry

This quarter, ADT started a project testing the possibility of commercializing phosphorized salt-lick blocks. The target areas were Khwaja Mulk in Kandahar, Kulungar in Logar and Sheikhabad in Wardak Provinces; all locations where ADT and PSA have representatives in the bazaars. Each location received 400 blocks for demonstration purposes in December. ADT and PSA bazaar representatives will collect data from farmers and local traders concerning the interest shown in the blocks and the amount needed in each province. This data will be used for future planning.

H. PROCUREMENT

This quarter, ADT reviewed its inventory of agricultural machinery and related equipment and defined what would be needed in 1991. Appendix 9 outlines ADT's procurement history.

I. FUTURE ACTIVITIES

Future field activities will focus on training farmers to adopt new technologies to improve production and better crop management. Extension agents will conduct demonstrations on plots of Shaheen corn, a new improved variety of corn. Five tons of this certified hybrid seed will be sent to Logar, Ghazi, Kandahar, Nengarhar and Helmand provinces.

Wheat seed multiplication will continue, however, the method for collecting and re-distributing seed will be revised based on the last year's experience. Four metric tons of Basmati 385, a leading variety of certified rice seed in Pakistan, will be sent to Nangarhar and Baghlan provinces for demonstration purposes.

ADT's fertilizer testing will continue and expand. Potash will be applied to several fruits: apples, apricots and grapes and results noted. Demonstration plots on application of potash fertilizer along with Urea and super phosphate will continue on potatoes, corn and vegetables. The use of ferrous sulphate, iron chelate agrispans and sulphur will be demonstrated on high value crops.

Horticultural activities will include showing farmers how to properly prune fruit trees distributed last year and the distribution and planting of 180,000 apple trees in Logar, Ghazni, Wardak and Paktika provinces. Additionally, inter-cropping with vegetables will again be encouraged in the new orchards.

Finally, tine tillers, trailers, plows and disk harrows will be provided for each ADT Center so the farmers can borrow these implements.

IV. COMPONENT: FINANCE AND ADMINISTRATION (F&A)

This quarter the Finance and Administration (F&A) component of the ASSP/PSA was primarily concerned with:

- SECURITY
- PROCUREMENT
- PROPERTY MANAGEMENT

A. SECURITY

Office, residential and individual security continued to be a major issue this quarter as the US presence in the Persian Gulf escalated. The office warden system was updated. Vehicles continue to be parked at secure locations nightly and extra fuel, food and water are stored at residences and offices. The office plans to purchase metal detectors to search individuals coming into the complex and mirrors to look under vehicles.

B. PROCUREMENT

Finally, 21 of the 31 long-awaited project vehicles arrived. The project received two Landcruisers, three station wagons Prairies and 16 4x4 pickups. Of these, three pickups and one station wagon were sent to Quetta. To manage these vehicles, Mr. **Noor Elahi** joined the ASSP/PSA staff as motorpool supervisor. Presently, the Executive Officer and Noor Elahi are looking for additional parking space near the office complex. They have also interviewed, tested and hired 15 drivers for these vehicles.

Also procured this quarter was a heavy duty photocopy machine and a binding machine. These will aid the project in producing quality reports. Three ASSP/PSA photocopy operators and staff received training in their use. A 50-line telephone system replaced the 20-line system. Two additional telephone lines were also installed.

C. PROPERTY MANAGEMENT

Mr. **Mohammad Amin** joined the project as Logistics Officer. His tasks include supply and inventory control. Mr. Amin and staff labeled and counted all ASSP/PSA property this quarter.

V. INFORMATION UNIT (IU)

The IU concentrated on the following:

- o. INSTALLATION OF HARDWARE AND SOFTWARE
- o. TRAINING
- o. ASSP/PSA ARCHIVES
- o. STAFFING
- o. FUTURE ACTIVITIES

A. INSTALLATION OF HARDWARE AND SOFTWARE

This quarter the IU's activities expanded enormously due to arrival of new machines, printers and GIS equipment. New equipment installed includes 10 desktops, 6 laptops, 15 printers (including a laser), two GIS computers, two digitizers and a huge plotter. IU staff installed WP, 123R3 and 2.2, Dbase and Harvard Graphics software on all the new systems. ARC/INFO was installed on both GIS machines.

In addition to the above mentioned installations, ASSP/PSA also received and installed a second modem in a 286 machine connected to an international line. A Farsi wordprocessor (MLS) was loaded on three systems.

IU bought a HP PaintJet color printer featuring three primary colors. This has been instrumental in projecting project data prepared in Harvard Graphics. The outputs complement the ASSP/PSA Workplan and budget.

MARIS data was converted from Lotus to Dbase format for the PPA component.

Personnel and Inventory databases developed by the IU were handed over to Administration section. F&A staff was trained in updating and managing them. This brings the number of databases maintained by sections to three (PSA commodity tracking system was developed and installed last quarter).

B. TRAINING

Many ASSP/PSA staff received training on the new equipment. Training covered various types of software such as wordprocessing (English and Farsi), spreadsheet, database to GIS and networking.

NUMBER OF PEOPLE	LENGTH OF TRAINING	COURSE
3 accountants	6 weeks	dBase training
2 admin. Officers	2 weeks	dBase training
2 monitors	1 week	wordprocessing
2 surveyors	1 week	wordprocessing
1 monitor	1 week	Farsi wordprocessing
1 secretary	1 week	Farsi wordprocessing
4 IU operators	4 weeks	GIS, ARC/INFO training

Two GIS specialists came from Earth Satellite Corporation, USA, to conduct the GIS ARC/INFO training.

All four operators were trained. The IU Director, **Asif Niazi**, and **Data Processing Officer, Shazzia Moyeen** received a week of training in Karachi on Novell Netware. Training included user and supervisor level, installation, configuration and troubleshooting. With this training, the IU is ready for a LAN.

C. ASSP/PSA ARCHIVES

To ensure data security, the project installed two backup systems: Mountain Tape Drive and a Bernoulli box. The Bernoulli box's 44 MB read/write facility ensures that all ASSP/PSA Important documents are stored in read/write format. Copies are maintained at the IU, ASSP/PSA staff house and in a locker at the local bank. A second set is maintained on the 150 MB tape. Stored information includes files, memos, consultant reports, databases, budget, accounts and spreadsheet data files from other NGOs.

D. STAFFING

After GIS training, two operators were shifted to the PPA component to work in the GIS section. Shazzia and Hassan were given greater responsibilities at the IU with new job descriptions. **Hassan** became the **Operations Officer** in charge of all installations, hardware maintenance and software backups. **Shazzia**, as the **Data Processing Officer**, is in charge of databases, archives and wordprocessing. Training assignments are shared.

E. FUTURE ACTIVITIES

During the next quarter, the following activities are planned:

- developing codes for the program budget accounting system to bring them in line with the Workplan;
- updating Workplan for next 6 months;
- installing Netware 386. This will include detailed user training;
- revising the maintenance contract for ten systems and four printers; and
- re-programming the PSA Commodity Tracking System to include the project's banking system.

APPENDIX 1

PPA MONITORING ACTIVITIES

1. To Logar, Wardak and Ghazni

End of September to the beginning of October:

The main objectives of this trip were to evaluate ADT-field staff and clarify the transportation channels being used to carry fertilizer inside Afghanistan. One result of this assessment led to a follow-on monitoring trip to look further into the shipment of fertilizer and wheat seed.

2. To Sheikabad/Hindukush

End of October to the beginning of November:

One or more monitors were sent with each convoy carrying wheat seed that left the ASSP/PSA warehouse in Peshawar. These convoys carried a total of 450 MT wheat seed, which were scheduled to be transported north of the Hindukush. All of the seed arrived at the PSA office in Sheikabad, (Wardak province) but traders were unable to go further due to blockades of the roads by government and mujahideen troops laying siege to Kabul.

In addition to giving ASSP/PSA staff a better understanding of the transportation problems, this trip also provided a better understanding of the difficult circumstances under which ASSP/PSA field staff have to work, and the conflicting interests of certain Afghan traders.

3. To Dar-e-Noor, Nangarhar

End of November:

This survey investigated the possibility of expanding ADT activities to this part of Nangarhar. The monitors also looked into the possibility of cooperating with NGOs presently working in the area on a poultry project.

4. To Maroof and Khawja Mulk, Kandahar

End November to the beginning of December:

The trip was designed to monitor the horticulture and ADT activities around Maroof and the PSA office of Khawja Mulk. The monitors found that the ASSP/PSA activities in this area were weaker than in other provinces surveyed during this period.

5. To Sheikabad, Wardak

Beginning of December:

Several senior Afghan ASSP/PSA field staff were sent to Wardak to resolve some logistical and administrative problems which had occurred during previous missions.

6. Short cross-border trips

October to December:

Various short trips were made to cross-border locations in Afghanistan to check whether certain commodities had actually crossed into Afghanistan.

APPENDIX 2

YIELD INCREASES FOR POTATO AND CORN PER JERIB (1)

(All figures Kg/Jeribs)

Location	Crop	Yield/j(2000M2) With Fertilizer	Yield /j Without Fer.	Yield/j Increased With Fer.
1. Chak Wardak	**Potato**	4482	3990	438
2. "	"	3240	2350	890
3. Ghazni	"	4663	2560	2103
4. Paktika	"	2947	2100	847
5. Karabagh Ghazni	"	2800	1900	900
6. Charkh.Logar	"	1120	700	420
7. Charkh	"	1720	400	1320
8. Baraki Barak	"	3080	420	2660
9. Baraki Barak	"	2520	154	2366
10.Charkh	"	4319	2916	1403
11.Kolangar	"	2940	2320	620
1. Kandahar Maroof	**Corn**	900	675	225
2. Wardak	"	750	500	250
3. Jagato Ghazni	"	727	518	209
4. Karabagh Ghazni	"	560	500	60
5. Parwan*	"	840	820	20
6. Kolangar.Logar	"	970	830	140
7. Charkh	"	980	720	260
8. Baraki Barak	"	980	924	56

* In Parwan, potassium was the only variable. Nitrogen and phosphate were constant.

APPENDIX 3

AMOUNT OF SEED AND FERTILIZER DISTRIBUTED IN 1990

Provinces	Location	Amount of Seed M.T	Variety	Area under new Variety/j	Urea Needed M.T	D.A.P Needed M.T	Expected seed M.T
Kandahar	Khawaja Mulk	20	Pak -81	714	36	18	400
	Maroof	40		1428	71	36	800
	Maroof	12	Pirsabak 85	428			240
	Panjwayi	50		1785	89	45	1000
	Panjwayi	15	Pirsabak 85	536			300
Helmand	Shamalan	5	Pirsabak 85	178	-	-	100
	Darweshan	5	"	178	-	-	100
	New Area	80	Pak -81	2142	108	54	1200
Back Wa	New Area	30	Pak -81	1071	54	27	600
Nangarhar	New Area	50	Pak -81	1786	90	45	1000
Ghazni	Ander	1	Bezostaya	25	1.25	.63	20
	Deh Yak	1		25	1.25	.63	20
	New Area	1		25	1.25	.63	20
Logar	Baraki Barak	2	Bezostaya	50	2.5	1	40
	Charkh	2.5		63	3	1.5	50
	Kulangar	3.5		87	4.4	2.2	70
Wardak	Chak	2	Bezostaya	50	3	1.5	40
	Sheikabad	1		25	2.5	1	20
Paktika	Orgun	2	Bezostaya	50	5	2	40
Total		310		10646	470	235	6060

APPENDIX 4

YIELD COMPARISON OF IMPROVED AND LOCAL WHEAT PER JERIB (20000M^2) OF LAND

Province	No of Farmer	Improved Wheat Increased	Variety	Local Wheat	% Of Yield
Nangarhar	10	560 Kg	Pak (81)	350 kg	38
Paktika	14	700 Kg	Bezostaya	491 Kg	30
Logar	30	644 Kg	Bezostaya	335 Kg	48
Ghazni	17	425 kg	Bezostaya	318 Kg	25
Wardak	9	700 Kg	Bezostaya	434 Kg	38
Panjwaee	24	780 Kg	Pirsabak (85)	400 Kg	49
Maroof	12	650 Kg	Pirsabak (85)	605 Kg	7
Helman	45	614 Kg	Pirsabak (85)	492 Kg	25

NOTE: Extension agents acknowledge that information and data collected from the farmers is not reliable, especially under present farming conditions.

APPENDIX 5

DEMONSTRATION FORM FOR WHEAT THRESHER

Demonstrated by: Mohd Hassan Mirza Khan
Province: Logar
District: Kolangar

Date: 10/08/90 - 21/08/90

No	Type of Machine	Supplier	Shaft Average		Damages & Faults Occurred during Operation. Parts repaired or replaced Action & reason	How it Works				Remarks
						Local Wheat		Improved Wheat		
			Local	Improved		Good	Bad	Good	Bad	
1	Wheat Thresher	Batala	450	700	None	Good	-	Good	-	Performance satisfactory
2	"	Naeem	150	400	Screen wires broke during operation	Fair	-	Fair	-	-
3	"	Itifaq	80	-	None	-	Bad	-	Bad	Chaff not separated from grain
4	"	Jeco	70	-	A piece of shield had to be cut before could be used as spikes hit the shield	-	Bad	-	Bad	Performance not satisfactory Chaff not separated from grain
5	"	Moghul	200	-	Cylinder teeth (spikes) broke as operation started	Fair	-	Fair	-	Could not be used as broke down

APPENDIX 6

DEMONSTRATION FORM FOR WHEAT THRESHER

Demonstrated by: Mohd Hassan Mirza Khan
Province: Paktika
District: Waza Khowa

Date: 10/08/90 - 21/08/90

No	Type of Machine	Supplier	Shaft Average		Damages & Faults Occurred during Operation. Parts repaired or replaced Action & reason	How it Works				Remarks
						Local Wheat		Improved Wheat		
			Local	Improved		Good	Bad	Good	Bad	
1	Wheat Thresher	Batala	840	-	None	Good	-	Good	Bad	Performance satisfactory
2	"	Jeco	630	-	None	Good	-	Good	-	Transporter doesn't work satisfactory in feeding machine
3	"	Naeem	630	-	None	-	Bad	-	Bad	
4	"	Itifaq	490	-	None	Fair	-	Fair	-	
5	"	Moghul	630	-	None	Fair	-	Fair	-	Chaff not separated from grain

APPENDIX 7

RESULTS OF THREE DIFFERENT TYPES OF CORN SHELLERS SENT TO AFGHANISTAN FOR DEMONSTRATION

No	Type of Machine	Supplier	Shaft Average Kg/Hr	Damages and faults may happened during Operation Parts repaired or replaced action and reason	How it is working Local Corn		Improved Corn	
					Good	Bad	Good	Bad
	Logar							
1	P.T.O Corn Sheller	1990 BATALA	800 - 900	No damage to the grain 10 -20% damage to the cobs	Good	--	Good	
2	P.T.O Corn Sheller	1990 P.F.D	800 - 900	No damages to the grain 10 -20% damages to the cobs	Good		Good	
3	Hand Operated Corn Sheller	1990 BATALA	50 - 70	No damages	Good		Good	
	Helmand							
1	P.T.O Corn Sheller	1990 BATALA	1000	No damages	Good		Good	
2	P.T.O Corn Sheller	1990 P.F.D	900 - 1000	No damages	Good		Good	
3	Hand Operated Corn Sheller	1990 BATALA	40 - 60	No damages	Good		Good	

1. The capacity of work per hour depends on the feeding of corn shellers. If three persons are available--one to feed, another to collect grains, and the third to take the cobs out before they are stuck together the P.T.O driven machine could shell 1-1.5 ton/hour.
2. The corn must be dry. High cob moisture reduces the capacity of the machine.
3. Hand operated machines are good for experimental plots. Farmers were not impressed by hand operated corn shellers for large scale use.

APPENDIX 8

NUMBER OF FRUIT AND WOOD TREE SEEDS PLANTED IN AFGHANISTAN IN 1990

WARDAK PROVINCE:

1. Nursery in Chak to Wardak.

15 Kg of apple seed planted on 2.5 jeribs of land, or (5,000M^3).

70 Kg of apricot seed planted on 3 jeribs of land, or (6,000M^3).

21 Kg of almond seed planted on 1 jerib of land, or 1,000M^3).

45 Kg of Russian olive planted on 2 jeribs of land, or (4,000M^3).

2 Kg of ash seed planted on 1.5 jeribs of land, or (3,000M^3).

3 Kg of mulberry seed planted on 1.5 jeribs of land, or (3,000 M^3).

2. Nazik Khil Nursery, Wardak

7 Kg of apple seed planted on 1 jerib of land, or (2,000M^3).

56 Kg of apricot seed planted on 3 jeribs of land, or (6,000M^3).

14 Kg of almond seed planted on 1 jerib of land, or (2,000M^3).

46 Kg of Russian olive seed planted on 2 jeribs of land, or (4,000M^3).

2 Kg of ash seed planted on 1.5 jeribs of land, or (3,000M^3).

3 Kg of mulberry seed planted on 1.5 jeribs of land or (3,000M^3).

APPENDIX 8 (contd)

LOGAR PROVINCE:

1. **Charkh (Garmaba) Nursery**

   56 Kg apricot seed planted in 4 jeribs of land or (8,000M^3).

   35 Kg almond seed planted in 3.5 jeribs of land or (5,000M^3).

   6.5 Kg apple seed planted in 1 jerib of land or (2,000M^3).

   6 Kg ash seed planted in 0.5 jeribs of land or (1,000M^3).

   24 Kg Russian olive seed planted in 1.5 jeribs of land or (3,000M^3).

   6,5 Kg mulberry seed planted in 1.5 jeribs of land or (3,000M^3).

2. **Dusht Nursery Logar**

   56 Kg apricot seed planted in 3 jeribs of land or (60,00M^3).

   35 Kg almond seed planted in 2 jeribs of land or (40,00M^3).

   7 Kg apple seed planted in 0.5 jerib of land or (1,000M^3).

   6 Kg Ash seed planted in 0.5 jerib of land or (1,000M^3).

   24 Kg Russian Olive seed planted in 2 jeribs of land or (40,00M^3).

KANDAHAR PROVINCE:

1. **Maroof Nursery**

   52 Kg of almond seed planted in 2 jeribs of land or (4,000M^3).

   52 Kg of apricot seed planted in 2 jeribs of land or (1,000M^3).

   21 Kg of Russian olive seed planted in 1.5 jeribs of land or (3,000M^3).

   3 Kg of ash seed planted in 1.5 jeribs of land or (3,000M^3).

APPENDIX 8 (contd)

GHAZNI PROVINCE:

1. **Deh Yak Center nursery**

   105 kg of apricot seed planted in 6.5 jeribs of land or (13,000M^3).

   28 Kg of almond seed planted in 2.5 jeribs of land or (5,000M^3).

   24 Kg of apple seed planted in 2 jeribs of land or (4,000M^3).

2. **Ander Nursery Ghazni**

   56 Kg apricot seed planted in 3 jeribs of land or (6,000M^3).

   28 Kg almond seed planted in 2 jeribs of land or (4,000M^3).

   14 Kg Russian Olive planted in 2 jeribs of land or (4,000M^3).

   3 kg ash seed planted in 1 jerib of land or (2,000M^3).

APPENDIX 8 (contd)

NUMBER OF TREES THAT HAVE BEEN GRAFTED IN THE NURSERIES INSIDE AFGHANISTAN.

KANDAHAR:

1. **Maroof Nursery**

   Apricots: 9,000 tree grafted in 1990.

WARDAK PROVINCE:

1. **Nazuk Khil Nursery**

   Almonds : 7,900 trees grafted 1990.
   Apricots: 6,100 trees grafted 1990.

2. **Chack Nursery**

   Apricots: 13,000 trees grafted 1990.

LOGAR PROVINCE:

1. **Dasht Nursery**

   Apricots: 10,400 trees grafted 1990.

2. **Chak (Garmaba) Nursery**

   Apricots: 6,139 trees grafted 1990.

GHAZNI PROVINCE:

1. **Deh yak (Center) Nursery**

   Apricots: 1,000 trees grafted.

APPENDIX 9

ADT 1990/1991 PROCUREMENT HISTORY

	ORDERED THRU RONCO	ORDERED BY ASSP/PSA	RECEIVED
Machinery:			
Tractor: MF 240	16		16
Mold Board Ploughs	16		16
Disk Harrow	16		16
Tine Tiller	16		16
Trailers	16		16
Fixed Hitch	16		16
Seed Drills	3		3
Tractor mounted Reapers	8		8
Self Powered Thresher	1		1
Threshers	25		12
Back Pack Sprayers	1250		50
Motor Cycles	30		30
Power Tillers	23		--
Rice Transplanters	6		--
Rice Threshers	6		--
Rice Huskers	4		--
Agrichemicals & Soil Additives:			
Gibralin		35 lts	
Agrispan		100 lts	
Malathion		100 tons	
Iron Chelate		100 kgs	
Ferrous Sulphate		100 tons	
2-4-D		250 kgs	
Sulphur Dust		1000 tons	
Benlate		425 packs	
Loncol-2		425 packs	
Seeds & Planting Materials:			
Cauliflower Seed		100 kgs	
Carrot Seed		100 kgs	
Pea Seed		100 kgs	
Apple Seed		100 kgs	
Root Fuel Seed		100 kgs	
Ash Seed		100 kgs	
Wheat Pirsabak-85	550 Tons		
Corn Seed	5 Tons		
Rice	4 Tons		

APPENDIX 10

REPORTS PREPARED BY DAI/ASSP STAFF AND CONSULTANTS

PESHAWAR, PAKISTAN

1. Title: An Overview of the Market Information Requirements of the Agricultural Sector Support Project
   Prepared by: Tadesse Yiberta
   Date: June, 1990

2. Title: Loosely Connected Notes With a Useful Attachment
   Prepare by: Tariq Husain (DRMS)
   Date: August 15, 1990

3. Title: Monitoring Report Wardak and Parwan Provinces
   Prepared by: ASSP/PSA staff
   Date: August, 1990

4. Title: Trip Report Bamyan and Parwan Provinces
   Prepared by: ASSP/PSA staff
   Date: August, 1990

5. Title: Agricultural Price and Exchange Rates in Afghanistan, First Six Months of 1988 to 1990
   Prepared by: ASSP/PSA staff
   Date: August, 1990

6. Title: Recommendations On Farm Machinery For Use in Afghanistan
   Prepared by Joseph Campbell
   Date: August, 1990

7. Title: Restraints and Possible Interventions to Increase Agricultural Inputs to and Outputs From Afghanistan
   Prepared by: Denny Freed
   Date: August, 1990

APPENDIX 10 (continued)

8. Title: Survey III A Preliminary Analysis of Border Catchment Points
   Prepared by: ASSP/PSA staff
   Date: August, 1990

9. Title: Pilot Locust and Senn Pest Control Project for Afghanistan in Badghis Province
   Prepared by: Jerry Rann
   Date: September, 1990

10. Title: Cash Crops Feasibility Study
    Prepared by: High Value Horticulture
    Date: September, 1990

11. Title: Financing Cross-Border Trade, Reconstructing Agriculture and Agribusiness in Afghanistan
    Prepared by: Cary W. Raditz
    Date: September, 1990

12. Title: Private Sector Agribusiness Support
    Prepared by: Roger Poulin
    Date: September, 1990

13. Title: Organization and Training in the Agricultural Development and Training Component (ADT)
    Prepared by: Donald S. Humpal
    Date: September, 1990

14. Title: Report of Findings of Bazaar Survey IV
    Prepared by: ASSP/PSA staff
    Date: October, 1990

15. Title Commodity Price Report July-September 1990
    Prepare by: Tom Harrington
    Date: October, 1990

16. Title: Activity Report September-October 1990
    Prepared by: Denny Freed
    Date: November 5, 1990

APPENDIX 11

REQUESTS SUBMITTED & APPROVED BY O/AID/REP OCTOBER - DECEMBER 1990

REQUEST	SUBMITTED	APPROVED
Request to contact Afghan Businessmen	10/01/90	10/03/90
Bert Bosch - monitor	10/01/90	10/09/90
Johanna Eversole - ESat consultant	10/05/90	10/09/90
Robert Godfrey - short-term consultant	10/04/90	10/08/90
Bertha Fink - editor	10/04/90	10/09/90
ESAR consultants	09/09/90	10/21/90
GIC subcontract	10/17/90	11/01/90
Tom Harrington - short-term consultant	10/20/90	10/29/90
Request for travel- Afghan Businessmen	10/28/90	10/31/90
ADT staffing	10/28/90	11/26/90
Anita Chandler - secretary	11/07/90	11/18/90
B. Bosch & M. Foerderer extension of contracts	11/25/90	11/29/90
Michael Bertelsen- short-term consultant	11/28/90	11/29/90
TA Local Hire Positions	12/10/90	12/12/90
R&R Travel for D. Garner	12/09/90	12/13/90
Tom Harrington - Trade Economist	12/10/90	12/13/90
PL 480 Vegoil Auctions	12/17/90	12/20/90
Denny Freed - short-term consultant	12/31/90	01/06/91
Dr. Miran - short-term consultant	12/31/90	01/06/91

QUARTREP/STATUS.2

APPENDIX 12

QUARTERLY ACCRUALS FOR QUARTER ENDING 31 DECEMBER 1990

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
LOGISTIC SUPPORT	720,000	51,927					65,000	(100)
TECHNICAL ASSISTANCE	3,200,000	1,777,910	2,107,870	200,000	2,307,870	529,960	640,500	(17)
PROGRAM	15,520,000	5,855,090	7,506,126	525,000	8,031,126	2,176,036	2,153,000	(1)
ADT		907,364	1,194,450	135,000	1,329,450	422,086		
PPA		687,474	838,580	85,000	923,580	236,106		
PSA		4,214,880	5,417,366	285,000	5,702,366	1,487,486		
MONITORING		45,000	55,730	20,000	75,730	30,358		
	19,440,000	7,684,927	9,613,996	725,000	10,338,996	2,705,996	2,858,580	(5)