

PD-ABL-319
95313

TIPAN

**Transformation and
Integration of the
Provincial
Agricultural
Network**



Northwest Frontier Province, Pakistan

**Office of International Agriculture
University of Illinois at Urbana-Champaign**

**In collaboration with
Southern Illinois University at Carbondale**

PDABI-319

TIPAN QUARTERLY REPORT 93-III

1 July 1993 - 30 September 1993

**Submitted to the
Northwest Frontier Province
Agricultural University
Peshawar, NWFP, Pakistan**

and

**the U.S. Agency for International Development
Mission to Pakistan
A Report of Contract 391-0488-C-00-5001-00
The Transformation and Integration of the Provincial
Agricultural Network (TIPAN) Project**

by

**Office of International Agriculture
University of Illinois at Urbana-Champaign
Southern Illinois University at Carbondale**

30 September, 1993

PROGRESS ON MEETING PROJECT GOALS AND OBJECTIVES - O. MYERS JR.

Project Goals and Objectives

The objective of this project is to assist the NWFP Agricultural University to create a dynamic, outward-looking problem-solving, farmer-oriented center of teaching, research and outreach linked together to increase agricultural production, farm income, rural employment and improved family living standard in NWFP. Specific objectives are:

- (a) assist AU in a complete revision of its curriculum and teaching program;
- (b) assist the Government of NWFP and the NWFP-AU to develop a problem solving research program to be planned and implemented by the newly merged system;
- (c) assist AU in the development of an outreach program to link the University and its merged research capability with the NWFP's Agricultural Extension Service;
- (d) support the development and equipping of an outreach program division, the communication service division and a continuing education/in-service training division;
- (e) assist in the development and implementation of an administrative structure to reflect a new role and orientation of AU;
- (f) strengthen the capacity of the merged AU system personnel by arranging for degree-training in the U.S.;
- (g) establish firm linkage between AU and international agricultural universities and international research centers.

Summary of accomplishments during the past quarter

Teaching

- Eight long-term degree participants from the campus completed their degree requirements.
- The Department of Entomology prepared a departmental brochure with the assistance of Communication Services.
- All chapters for the textbooks in Horticulture, Plant Breeding and Genetics, and Crop Production were received for final editing and preparation of illustrations.
- Dr. Mohammad Akram assumed the position of Director of Placement and Human Resource Development.
- Dr. Sher Hassan, Department of Plant Pathology, returned from a Fulbright Fellowship to Washington State University.

Research

- Eight long-term degree participants from the research stations completed their degree requirements.
- The Director of the Laboratory Equipment Maintenance and Repair Unit at the National Agricultural Research Centre, Mr. Zafar Hameed Hashmi and his colleagues began work on equipment repair and, where necessary, installations on both the campus and research stations.

- Final equipment requests were received and orders were placed for both campus departments and research stations.
- The draft copy of the Provincial Master Research Plan was prepared with the input of an AU committee and 16 Technical Working Groups.
- Three researchers presented papers at international meetings and developed linkages with travel support from TIPAN. Dr. Parvez Paracha and Dr. Alam Khan attended a Nutrition Conference in Australia and Mr. Anwar Chisti an Agricultural Economics Conference in Korea.
- Monitoring of Special Grants Projects for participant returnees was initiated by the Technical Review Committee.
- A brochure was prepared by the Cereal Crops Research Institute with the assistance of Communications Services.
- Reports of the Cereals and Oilseeds Technical Working Groups were published.
- The monthly Meteorology Reports were published in coordination with the Departments of Agricultural Mechanization and Water Management.
- A five day maize travelling seminar was held which was organized and attended by campus and research station scientists and included extension personnel at several locations.
- The Model Seed Multiplication Project produced over two ton of cleaned wheat seed for distribution and sale to the farming community.

Outreach

- Seven short-term participants attended the INTERPAKS short course for Extension Administrators. These included the Director of Outreach, the Program Leader for Livestock and five representatives from Extension, including the Director General and regional Deputy Directors.
- Six short-term participants attended the INTERPAKS short course on Subject Matter Specialists. These included both campus and research station scientists.
- Two Women's Outreach Workshops were held, one on Human Nutrition and the other on Livestock and Poultry Management.
- Dr. Cordell Hatch, Communications TDY, assisted the Director of Communication Services and his staff in developing brochures and other printed materials and finalized specifications for AV equipment purchase requests.
- Field days were held at farmer field sites at Mardan and Mingora in conjunction with the research stations, extension and other donors.
- Four Memorandums of Understanding (MOUs) were signed with governmental and non-governmental agricultural organizations.
- An outreach program was developed with the Gadoon-Amazi Project in which several campus and station researchers are participants.

- **A Deans and Chairman meeting was held to discuss the role of the various campus units in providing Outreach Subject Matter Specialists.**
- **A campus meeting and new building tour focusing on Outreach was held for the new Secretary of Agriculture, Naeem Khan, and the Agriculture Section Chief and Chief Planning Officer of the Provincial Planning and Development Department.**
- **Two Workshops on Computer Usage were held for research station personnel at Abbottabad (Included Dhodial and Jabba) and at Chitral. One computer workshop was held for support staff on the AU campus.**

Administrative Structure and Governance System

- **Mr. Tom McCowen, Campus Coordinator, assisted the Team Leader and the TAT in demobilization planning, long-term and TDY staffing plans, and procurement and field office budgeting.**
- **Dean S. Basit Ali Shah was named Vice Chancellor in mid-August.**
- **A one week sustainability workshop was held which focused on identifying specific sustainability issues and developing action plans to provide solutions.**
- **Approval by ECNEC of the TIPAN revised PC-1 was finally given, some three years after submission. Although sanctioning the previously appointed positions they did not agree to funding the critical and key unfilled PC-1 positions.**
- **Computerized financial management training was begun by Peat-Marwick.**
- **An NWFP-AU Linkages Committee was formed to develop linkages between other academic institutions like UIUC and SIUC and national and international centers.**

Team Leader's Comments

As noted in the proceeding accomplishment section and the individual TAT reports, this was a productive quarter. This was true despite the absence of a permanent Vice Chancellor from late April until mid-August. Due to the summer break at campus, the normal period of vacations, and the hot weather only recurring TDY, Dr. Cordell Hatch, and one administrative TDY, Mr. Tom McCowen, were scheduled during this period. In this section I will briefly discuss how certain project activities and other impact on institution building goals and sustainability.

Teaching

- **The return of eight degree participants to campus teaching, research and outreach duties is the largest number returning in any single quarter and brings the overall strength of campus returnees above 40. Collectively these returnees together with some 10 colleagues recently trained in the UK and other countries are having an impact on the quality of the teaching program and on research productivity.**

Research

- **The return of eight degree participants to the research stations represents the largest number returning in a single quarter and 20% of the 39 TIPAN returnees to the research stations. The impact of the increased competence and enthusiasm of returnees to the research system can already be observed.**

- **The repair and installation of laboratory equipment with the assistance of the NARC repair unit is making more equipment available both for research and teaching. Additionally, since the NARC unit has a mandate to assist the provinces this identifies for the AU system a competent repair service for their more sophisticated equipment.**
- **The draft Provincial Research Master Plan was completed with the input of an AU committee and the 16 Technical Working Groups. The draft represents the collective thinking of 100+ researchers and others for the Technical Working Groups and the synthesis of the AU committee. This exercise in addition to its plan as a product has brought many researchers and others together in a collegial fashion to identify and prioritize research problems of the province.**

Outreach

- **Seven participants attended the UIUC INTERPAKS short course for Extension Administrators, the Director and a Deputy Program Leader of Outreach and the Director General of NWFP Extension and four deputy Directors. This was the first time that Extension had been other than an indirect recipient of TIPAN programming, it is hoped that the training and the personal interactions of this short course will further Outreach Extension linkages.**
- **Six participants attended the UIUC INTERPAKS short course for Subject Matter Specialists, these included two Outreach Program Leaders, one campus researcher and three station researchers. This more formal training should be helpful in the continuing effort to develop campus and research station based subject matter specialists.**
- **Four Memorandums of Understanding were signed by the AU with different agricultural organizations. More importantly, the one signed with the Gadoon-Amazi project has led to a research-outreach action plan involving several campus and station researchers.**
- **Dr. Cordell Hatch, Communications TDY, provided recurring assistance to Communications services. Such recurring TDYs give program continuity and encourage independent development of the limited communications staff.**

Administrative Structure and Governance System

- **The naming of Prof. S. Basit Ali Shah as Vice Chancellor in mid-August brought stability to the AU system and allowed strategic planning activities to be formalized.**
- **The approval by ECNEC of the revised PC-1 although some three years late and several critical positions short, nevertheless, allows and forces the AU to develop strategic budget, staffing, and development plans. After several years of frustration mixed with hope the AU now more clearly recognizes its role in sustaining TIPAN goals and objectives.**
- **The one week sustainability workshop sponsored by USAID under the leadership of the University of Maryland was successful in that it moved sustainability issues from the theoretical discussion stage to the action plan stage. The identification of some 48 sustainability issues and their prioritization will allow more focused activity by the NWFP-AU sustainability committee.**

Problems/Constraints

- **The administrative uncertainty of the Vice Chancellor's position together with the political uncertainty within the Province and within Pakistan have made the necessary and desirable interactions with appropriate officials difficult and, at times, impossible.**

- The financial position of the university remains inadequate. The funds provided from GOP are slightly less than the salary and benefits needed for the staff and often are provided late.
- The critical positions in Communications, Continuing Education, and Maintenance were not approved by ECNEC. This will require some re-assignments or split-assignments within existing staff and the preparation of a new PC-1 for key positions and operating budget.
- The problem of inadequate space increases each quarter and is still from a few to several weeks away. The space constraints have impacted on programs and program development with Outreach functions, including Continuing Education and Communications, being affected most of all.
- There is now recognition by the GOP and NWFP of the recurring operational and maintenance costs of the new campus infrastructure. Since these costs represent a significant increase to the recurring budget a strategy for assuming these costs needs to be arrived at during this fiscal year.
- The unresolved full merger issue continues to impact on activities, planning and morale. The amount of communication on this issue needs to be increased at all levels with full discussion of benefits and/or liabilities. A decision needs to be made but it should not be unduly rushed and, thereby, emotionally rather than rationally decided.
- Time for full implementation of several TIPAN objectives is a genuine constraint. The professional, procedural and attitudinal changes of institutional building take time, more than has so far been expended in this project.

CONTINUING EDUCATION - DONALD E. KUHLMAN

INSTITUTIONALIZE OUTREACH PROGRAM (C-1.1)

Outreach activities during the third quarter (July-September) of 1993 emphasized women's outreach, preparation for TDY Consultants, participant training in INTERPAKS Short Courses, and continuation of efforts to institutionalize split-assignments within the Agricultural University and research systems.

Following is a summary of the major activities for the quarter:

- Training workshops were conducted for women on "Food and Human Nutrition" and "Poultry and Livestock Management."
- An INTERPAKS Short Course at the University of Illinois on "Improving Organization and Management" was attended by five NWFP Agricultural Extension staff and two NWFP-AU Outreach staff from September 7 to October 13.
- An INTERPAKS short course at the University of Illinois on "Agricultural Technology: From Research to Extension to Farmer" was attended by two Outreach Regional Program Leaders two AU campus faculty and two researchers from July 15-August 20.
- A Field Day for apple growers was organized and conducted by the Mingora Agricultural Research Station on August 10.

- The Outreach Directorate convened a meeting with Directors, Deans and Department Chairmen on September 21 to discuss the appointment of staff to serve as Outreach Subject Matter Specialists via a split-assignment.
- Memorandums of Understanding were culminated between four agricultural organizations and NWFP-AU.
- A meeting was held on the AU campus with Naeem Khan, NWFP Secretary of Agriculture, to inform him of activities of Continuing Education, Outreach, and the Communications Division on September 27. A tour of the new campus facilities was a highlight.

INSTITUTIONAL DEVELOPMENT (C-1.1)

At the invitation of the Vice Chancellor and TIPAN, Naeem Khan, NWFP Secretary of Agriculture, met with the Vice Chancellor, Outreach staff and TAT on September 27 at the NWFP-AU campus. The objective of the meeting was to inform the Secretary of Agriculture of ongoing programs in Outreach, Continuing Education and the Communications Division and included a tour of the new building facilities. Meetings of this nature will be essential in these waning months of the TIPAN project to inform provincial and national leaders of the new building facilities and of the potential of the new NWFP-AU land grant type system to impact agricultural productivity, farm profitability and improve the quality of life of people in rural areas.

SPLIT-ASSIGNMENTS (C-1.1)

The Outreach Directorate, under the leadership of Mehfooz All Shah, Outreach Consultant, arranged a meeting of Directors, Deans, Department Chairmen and TIPAN TAT on September 21 to review and revitalize the concept of split-assignments for AU faculty. The outcome was positive. Professor Jehangir Khan Khattak, Dean of Crop Production Sciences, offered his verbal support of Outreach as an important component of NWFP-AU and the involvement of teachers and researchers in outreach activities via a split-assignment system.

Mehfooz All Shah is contacting Deans and Department Heads to compile the names of faculty who will be involved in outreach. Although many obstacles to the split-assignment concept have been encountered and still remain, I am encouraged by the positive response of the 13 Department heads and Deans who attended the meeting. Follow-up meetings are planned to discuss the roles of the Outreach Subject Matter Specialists (ORSMS), prepare job descriptions and identify doable activities that do not require extensive funding.

As mentioned in previous quarterly reports, the assignment of researchers and AU faculty to responsibilities as ORSMS will be critical to the TIPAN mission of achieving linkages with Agricultural Extension and transforming the agricultural technology transfer network in NWFP into an effective system.

MEMORANDUMS OF UNDERSTANDING (C-1.2)

Since the inception of the Outreach Directorate in 1987, efforts have been made to establish and maintain linkages between NWFP-AU and agricultural agencies via "Memorandums of Understanding" (MOU's). These MOU's, which define the role of NWFP-AU in assisting other agencies, are reviewed and revised annually. Mehfooz All Shah is currently giving leadership in reviewing and renewing MOU's with previous partners and has developed new MOU's with the Gadoon Field Management Team, Sarhad Rural Support Corporation, NWFP Fruit and Vegetable Development Board and Agricultural Development Authority. Six other MOU's are in varying degrees of preparation.

Perhaps the most important outcome of an MOU is sending a signal that NWFP-AU has an Outreach component which can support and give assistance to sister agencies.

Technology Transfer (C-1.4)--Maize Travelling Seminar

The Maize Travelling Seminar, held September 28-30, will be described in more detail by Dr. Olsen, Crop Sciences Specialist. However, the five-day tour to visit maize plots in the northern half of the province brought together researchers and faculty members in a manner that should inspire collaborative research and outreach activities. During the two days I could be with the group, I observed an interaction of staff that will certainly contribute to the development of a system of interactive teaching/research/outreach functions. Barriers between campus and research stations are vanishing. From an outreach perspective, the maize travelling seminar was a catalyst to hold a farmer field day in the Swabi area on October 4. Baz Mohammad, Regional Program Leader, and Dr. Muhammad Saim, Maize Researcher, gave leadership to arrange the field day. The activity was planned in cooperation with Agricultural Extension in a span of two days and attracted 200 farmers on October 4.

Technology Transfer (C-1.4)--Gadoon-Amazal

In July, Major Tariq Mahmand (Retd), Program Coordinator for the Gadoon-Amazal Field Management Team (GFMT) contacted the Outreach Directorate to inquire about training programs for women. The GFMT is an NGO funded by USAID with responsibilities to organize and facilitate programs to raise the living standards of people in the Gadoon-Amazal, once a major poppy-growing region. Although poppy has been replaced by maize and wheat, problems of low-income, low yields and malnutrition are commonplace. Gadoon-Amazal is a mountainous region where maize and wheat are grown on narrow terraces. The impression is of poverty, isolation and hardship.

Major Tariq's visit to the Outreach Directorate came about as a result of an Outreach news release describing a training program for women at NWFP-AU. At the urging of Major Tariq, Meera Khan and I toured six villages and met with around 200 farmers on July 25-26 to look into ways the NWFP-AU might assist in giving training and technical support to the GFMT.

The two-day exploratory trip has brought several actions. First, a Memorandum of Understanding between NWFP-AU and GFMT has brought about the development of a process to assist the people in the Gadoon-Amazal area. Second, and most important, a meeting attended by faculty from Agronomy, Horticulture, Livestock Management and Poultry Science has resulted in a team of six---four from the AU faculty and two from research stations---to tour Gadoon-Amazal on August 28-29 and meet with over 300 farmers to identify problems and determine what outreach programs might serve their needs.

The six who participated were:

Dr. Fazal Hayat Taj	Chair, Agronomy Dept
Professor Sharafat Khan	Chair, Horticulture Dept
Dr. Ghulam Habib	Dept of Animal Nutrition
Dr. Fazil Raziq Durrani	Dept of Poultry Science
Mr. Purdil Khan	Veg Botanist, Tarnab ARI
Mr. Ali Halder	Wheat Specialist, CCRI

Others who participated in the field trip were representatives of Agricultural Extension, Livestock and Dairy Development Department, two Social Organizers from GFMT, Major Tariq and myself.

Although the field trip was intended for learning about farmers problems, it turned out the AU faculty and researchers gave short presentations on their specialties in each village. The farmers had lots of questions and the interaction between AU staff and 300+ farmers was very

good. Interestingly, this was the very first time for the six AU staff to visit Gadoon-Amazal, about a two hour drive from Peshawar, along the west bank of the Tarbela reservoir.

The field trip reminded me very much of my experience as an Extension Entomologist in Illinois. I observed a group of six AU professors/researchers functioning as ORSMS who taught and listened to farmers. Although the future role of AU staff will be mostly one of "training the trainer" rather than travelling throughout the province meeting with farmers, it will be necessary for them to visit with farmers on occasion, simply to stay attuned to their problems.

As a follow-up to the field trip, a meeting was held on September 15 at the Outreach Directorate in which staff from Agronomy, Horticulture, Livestock Management, Poultry Science, Women's Outreach and GFMT prepared a monthly calendar for outreach activities in the Gadoon-Amazal area from September, 1993 through June, 1994. The planning process was good and the participants developed an ambitious program. It remains to be seen whether all the activities can be implemented.

Women's Outreach Program (C-1.5)

- Ejaz Begum, Women's Program Leader (WPL) for Outreach, participated in a three-day seminar on "Problems of Working Women" on August 28-30 in Lahore. The seminar, sponsored by the National Institute of Public Administration, emphasized leadership development for women.
- Ejaz Begum WPL, was instrumental in organizing and coordinating two one-week training workshops for women during July. The "train the trainer" programs were: 1) Food and Nutrition," July 3-8; and 2) "Livestock and Poultry Management," July 17-22.

Twenty ladies enrolled in the workshop on "Livestock and Poultry Management." The participants were from the Fruit and Vegetable Development Board (10); Community Leaders (2); Women's Development Association of Mardan (2); Gadoon Field Management Team (5); and Pak-German Integrated Rural Development Program (1). The instructors were: Dr. Mushtaq Mian and Dr. Fazil Raziq Durrani, Department of Poultry Science; Dr. Ghulam Habib, Department of Animal Science; Dr. Shabir Ahmad Shah, Agricultural Training Institute; Dr. Mashooq Ali, Surezai Livestock Research Station; and Dr. Iqbal Shah, Dr. Meera Khan and Ejaz Begum, Outreach Directorate.

The evaluations of the workshop were positive. A highlight of this workshop was a one-day field trip to visit the FVDB, Veterinary Research Institute, AHITI, and Harichand Cattle Breeding and Dairy Farm.

Perhaps the biggest plus for the tour was the involvement of PTV in filming the women's tour for a 25 minute documentary that aired on July 27. The program highlighted the efforts of NWFP-AU and Outreach in organizing and conducting the training workshop for women. News releases also highlighted the workshop and role of NWFP-AU and the Outreach Directorate.

Ejaz Begum, Meera Khan and Mehfooz Ali Shah deserve much credit in arranging for PTV to film the tour.

Twenty ladies were also enrolled in the "Food and Human Nutrition" workshop. They were from: Family Planning Association of Pakistan (5); FVDB (12); and Social Workers (3).

The instructors were:

Mr. Said Wahab	Dept of Food Science and Technology
Mr. Javed Durrani	Dept of Food Science and Technology
Dr. Jegangir Khalil	Dept of Agricultural Chemistry

Dr. Tajammal Hussain	Dept of Agricultural Chemistry
Dr. Parvez Iqbal	Dept of Agricultural Chemistry
Dr. Hamidullah	Dept of Agricultural Chemistry

The evaluations of this workshop were also positive, with the lecturers receiving high marks.

In addition to the instructors for these two workshops, special mention and recognition are due Ejaz Begum, Meera Khan and Mehfooz Ali Shah who devoted their energies and skills in planning and coordinating two very successful training courses.

Participant Training (C-1.6)

The Outreach component of NWFP-AU was given a significant boost with the participation of 13 individuals from the NWFP-AU faculty, research stations and Agricultural Extension in two short courses at the University of Illinois sponsored by the international Program for Agricultural Knowledge Systems (INTERPAKS).

A new INTERPAKS short course for subject matter specialists, "Agricultural Technology: Farm Research to extension to Farmers," was held July 15-August 20 and attended by the following:

Baz Mohammad	Regional Program Leader, Peshawar
Qazi Aqlqullah	Regional Program Leader, Swat
Nazir Ahmad	Ass't Prof, Livestock Management Dept
Asgar Hussain	Ass't Prof, Horticulture Dept
Abdul Malik Lughmani	Oilseed Research Officer, Dhodial
Imtlaz Ahmad	Entomologist, Tarnab ARI

Those who attended the INTERPAKS short course on "Improving Organization and Management" from September 7-October 13 were:

Akram Khan	Director General, Agricultural Extension
Syed Bader-ud-Din	Deputy Director, Agr Ext, D.I. Khan
Mohammad Iqbal	Deputy Director, Agr Ext, Kohat
S. Nazakat Shah	EADA, Agr Ext, Abbottabad
Mumtaz Ahmad Khan	EADA, Agr Ext, Bannu
Meera Khan	Regional Program Leader, NWFP-AU
Dr. Iqbal Shah	Director of Outreach, NWFP-AU

The feedback from the participants who attended workshop #1 has been very positive (those who participated in #2 had not returned when this report was prepared). They were impressed particularly by the enthusiasm, work habits, knowledge, devotion and dedication of the INTERPAKS and U of I staff. One participant commented that "it caused us to look within ourselves at our own efforts." Their list of positives is lengthy. They were made to feel very welcome. I would judge the trips to Effingham County for discussions with County Extension Educators and to the Purdue Diagnostic Training Center to be highlights. The INTERPAKS coordinators and all the instructors who participated are to be commended. You get high marks. Your efforts will undoubtedly have a positive impact on the Outreach program at NWFP-AU.

I am very pleased these 13 individuals were given the opportunity to attend the two INTERPAKS short courses. I am confident the investment in people and the benefits of their training will become very evident over the coming months.

Leadership development, although difficult to measure and quantify, can't help but be enhanced through participation in the two workshops. I am particularly appreciative to USAID for allowing the Agricultural Extension staff to attend. This action should surely be a benefit to NWFP-AU/Agricultural Extension linkages and future program development.

FAO Consultants (C-1.4)

I met with Dr. Warren Prawl, Kansas State University and Dr. Wendy Quarry, Canadian High Commission on September 14 for about two hours to discuss Agricultural Extension in NWFP. Drs. Prawl and Quarry, consultants to FAO, are reviewing Extension programs in Pakistan, to be followed by a national workshop on the "Role of Extension."

Technology Transfer (C-1.4)--Apple Field Day

An Apple Field Day for farmers was held on August 10 at the Mingora Agricultural Research Station (MARS), followed by a tour of two apple orchards about 50 kilometers north of Mingora in the Swat Valley. The field day was initiated, planned and conducted by the Mingora ARS staff with the assistance of the Outreach Directorate. About 75 farmers attended. The farmers were given a short tour at MARS and heard talks by an entomologist, plant pathologist, horticulturist and soil fertility specialist. Following the research station tour, the group visited two apple orchards of progressive growers and observed improved practices that had been introduced by MARS scientists. The field day was a positive experience for farmers and researchers and again emphasized the importance of outreach activities at research stations. It appeared the field day was triggered by the Ries/Randell consultancy last May.

Continuing Education Division (C-2.1)

Dr. Asrar, Director of Continuing Education, summarized the activities of the Division of Continuing Education for the meeting with the Secretary of Agriculture on September 27. Although this division has only been operational since January 1992, the achievements are impressive. Following is a summary of activities for January 1992 to July 1993:

Number of Training Courses Conducted	31
Number of Training Days	423
Days Per Course (Range)	2-90
Number of Participants	694
Full-Time Student Equivalent	42
Number of Specialties Taught	13

The participants in the short courses have included, Agricultural Extension Staff, NWFP-AU faculty, and Afghan Specialists.

Administrative Support (D-1.1a)

I attended two days of the four-day workshop on "Sustainability of the NWFP Agricultural University System." The identification of inadequate funds as a key issue for outreach activities was hardly a surprise. However, it is encouraging to note faculty recognition of outreach as central to the TIPAN concept and a crucial link to Extension. The proposed solution of submitting a PC-1 to the provincial government may be necessary to resolve the Outreach operational funding dilemma after TIPAN and to provide a few key unfilled particularly in Continuing Education and Communications TIPAN PC-1 posts. However, unless and until NWFP-AU leaders recognize there are already adequate staff within the campus and research station system to do teaching, research and most outreach activities under a split assignment, it appears the future of Outreach functions within the existing system is precarious.

Summary Reflections

- NWFP-AU has been without a full-time Director of Outreach since the retirement of Mehfooz Ali Shah on 28 January, 1993. His successor, Dr. Iqbal Shah, has done an

excellent job considering his assignment as Director of Outreach was an additional charge to his post of Chairman, Department of Livestock Management.

- **An issue that needs to be resolved, and soon, is the appointment of a full-time Director of Outreach. While considerable progress has been made toward the sustainability of the outreach mission of NWFP-AU, much remains to be done. The appointment of a full-time Director of Outreach is a commitment that must be made by the NWFP-AU, University Grants Commission and the Provincial government. A question that cries for an answer is whether these groups are really dedicated to an Outreach Directorate in NWFP-AU and serving the agricultural needs of farmers in the NWFP.**

Plans for Next Quarter (October, November, December 1993)

- 1. Coordinate activities of Drs. Kevin Steffey, Walker Kirby and Marge Hamann, consultants for the Plant Protection and Women's Outreach programs.**
- 2. Review progress of the Special Grants Programs for Outreach activities.**
- 3. Continue to pursue the appointment of AU faculty and research staff as Outreach Subject Matter Specialists.**
- 4. Convene a meeting of the Outreach Advisory Board.**
- 5. Assist in the development of a brochure describing the Outreach program at NWFP-AU.**
- 6. Initiate plans to hold Management Skills Workshops for NWFP-AU staff.**

CROP SCIENCE-FARREL J. OLSEN

The former Dean of the Faculty of Crop Production Sciences, Mohammad Karim Khan passed away. He had retired in January 1993 and had served as a counterpart for TIPAN Team members for several years.

INSTRUCTION (TIPAN Area A)

The Department of Entomology was assisted with their Departmental booklet on, "Approved Curriculum and Courses of B.Sc. (HONS) and M.Sc. (HONS) in Entomology". Their booklet describes the major areas covered in the lectures for each course as well as the laboratory activities. This booklet will serve as a useful guide for students pursuing a degree in the Department of Entomology or for students only interested in taking an entomology course. Additionally, it will serve as a model for other departments within the University, it will serve as a model for other departments within the University. With this type of information, it will be much easier to determine if there is any duplication among courses or if some deficiencies exist.

Assisted Professor Tajammal Hussain, Dean of the Faculty of Nutrition Sciences with the publication "Normal and Therapeutic Diet Manual for Pakistani Population". This will be of great value for teachers and researchers in medical colleges and agricultural universities as well as clinicians and dietitians. It provides useful guidelines for normal, therapeutic and special diets.

Organize a Re-entry program for P/T's (A-I a.2)

The seminar series initiated by the Re-entry Committee is continuing. Mr. Attaullah Khan, Librarian and Dr. Noor Badshah, Department of Horticulture, gave seminars at the Agricultural Research Station, Dhodial. The topics presented were entitled, "Availability and Use of Library facilities at NWFP Agricultural University for Strengthening Research" and "Studies on the

Storage Life of Potatoes During Growth and Different Harvest Dates". Researchers from the Sheep Livestock Experimental Farm at Jabba and from the Potato Research Station, Abbottabad also attended.

Mr. Attaullah Khan, Librarian AU also presented a seminar for the Faculty of Crop Production Sciences and their M.Sc. students entitled, "New Knowledge and Information Sources in NWFP-AU Library for Faculty of Crop Production Sciences".

The Re-entry Committee has prepared a form for obtaining up-to-date information from the scientists on and off campus in order to develop a Directory of Scientists in the NWFP Agricultural University System. Additionally, the Re-Entry Committee is also preparing a list of available sources for research funding. This will be shared with all the scientists in the NWFP-AU System. This list of potential sources for research funding will be especially valuable for the recent returnees from long-term training.

Develop Department Brochures (A4 b.i)

The Department of Entomology recently completed and had published a brochure describing their program of study.

RESEARCH PROGRAM (TIPAN Area B)

The Technical Working Group on Oilseed Crops has also prepared their working paper, "Oilseed Crops, Review, Constraints and Strategies". This has been published and distributed.

Support Technical Review Committee (B-2.3)

Special Research Projects were reviewed and forwarded to the Chairman of the Technical Review Committee for further evaluation. Peer reviewed projects that received favorable reviews were recommended for funding.

Professor Mohammad Saeed, Chairman of the Technical Review Committee and I continue to monitor Special Research Projects both on and off campus. Several Special Research Projects were monitored at the Cereal Crops Research Institute, Pirsabak, and at the Agricultural Research Station Mansehra (Dhodlal). These reviews help scientists improve the quality, productivity and relevance of their research work.

Improve Research Capability (B3.2)

The publication of meteorological data commenced in January 1992. Since that time, publication has continued uninterrupted. Meteorological observations from 12 NWFP Agricultural Research Stations and Institutes are presently being published.

The compilation and distribution of the data from the weather stations are continuing with the assistance of Mr. Mohammad Amin, Assistant Mechanization Officer.

Meteorological Observations at NWFP Agricultural Research Station, Pakistan Volume I, NO. MET-03/93. January-March, 1993 has been published and distributed. Additionally, Meteorological Observations at NWFP Agricultural Research Stations, Pakistan Volume II, NO. MET-06/93 April-June 1993 has also been published and distributed.

A five day Maize Travelling Seminar was held in NWFP during the last week of September. The objectives of the Seminar were as follows: 1) To bring together maize scientists to exchange ideas, knowledge and improve maize production in the province. 2) To identify maize problems and constraints. 3) To delineate teaching, research and outreach/extension activities. 4) To

strengthen linkages among researchers, and outreach/extension workers. The status of the maize crop in NWFP, constraints faced by farmers in maize production, insect and disease problems and nutrient deficiencies were assessed. Fifteen long-term and 24 short-term participants participated in the Maize Travelling Seminar. The findings were discussed on the last day of the Seminar and recommendations were made regarding activities in research, teaching and outreach/extension for increasing maize production and profitability in NWFP.

Assess Status of Equipment, Spare Part Requirements (B3.5)

Assistance was given to various AU Departments, Research Stations and Institutes with their final equipment requests under TIPAN. Prioritized lists of equipment needs were submitted to TIPAN and were reviewed by the TIPAN Team Leader. Equipment orders are being processed.

Repair of Laboratory Equipment

The inventory (physical verification) of equipment last year revealed that many pieces of laboratory equipment at the AU were in need of installation, repair and in some cases spare parts.

TIPAN has addressed these problems by engaging the services of the Laboratory Equipment and Maintenance Unit from the National Agricultural Research Center (NARC). The following is presently being done by the NARC Laboratory Equipment and Maintenance Unit:

1. Repair and installation of laboratory equipment.
2. Identify needed spare parts.
3. determine required equipment manuals.
4. Identify unserviceable equipment.
5. Make suggestions for the cooperative use of major items of laboratory equipment.
6. Assess additional equipment needs.
7. determine the degree of utilization of major items of laboratory equipment.
8. Ascertain instrumentation training required.

The NARC Lab & Equipment technicians have repaired and installed many items of laboratory equipment. They have also repaired a number of pieces of meteorological equipment including several hygrometers. It is envisioned that the NARC Lab and Equipment section will continue to serve as a resource to AU.

Mr. Amin Khan, Department of Agricultural Mechanization has been assisting with the repair of some field equipment. Several sprayers from the Department of Entomology have been repaired including two power sprayers that were relatively new but were inoperative due to the lack of good maintenance practices.

Sprinkler Irrigation System at Cereal Crops Research Station (CCRI)

A new 20 HP water pump has been installed at CCRI for use with the sprinkler irrigation system. The old pump was incapable of pumping an adequate supply of water from the deep well. Dr. Jamal Khattak, Department of Water Management coordinated the work and assistance was given by Mohammad Jehangir, Asst. Agr. Engineer, CCRI and Mohammad Yousaf, Erector, K.S.B. Pumps Company LTD. Peshawar. A new platform was constructed prior to the installation of the new water pump. The sprinkler irrigation system at CCRI has been successfully installed and is working exceptionally well. The newly installed pump is providing more than enough pressure for the sprinkler irrigation system.

It is envisioned that the old water pump may be suitable for use at the Karak Research Station for the installation of a sprinkler irrigation system there. At the Karak Research Station, an

above ground water storage tank has been constructed. This will facilitate pumping of water to the experimental fields. Sprinkler pipes and laterals will be transported from CCRI to Ahmadwala (Karak) and also to the Malakandher Farm of NWFP Agricultural University. Demonstrations of the various types of irrigation systems will be conducted at the Malakandher Farm sponsored by the WAMA Project.

Development of AU Seed Production Unit (B3.5)

The design and construction of a model or prototype seed cleaner is underway through the assistance and cooperation of the Pak-Swiss Light Engineering programme in Mardan. The seed cleaner has been partially fabricated and will be fully assembled in the near future. All of the components including the screens and motor are with the Pak-Swiss Light Engineers. The model seed cleaner will be demonstrated to farmer groups.

The open-pollinated maize variety planted on one hectare for seed increase on the Malakandher Agricultural University Development Farm has been harvested and shelled. Seven tonnes of maize seed were harvested. The seed will be cleaned in the near future. Some of the maize seed will be sold to the Agricultural Development Authority and local farmers. The remainder of the seed will be retained for planting the next maize growing season at the Malakandher AU Farm. During the previous cropping season, two hectares of an improved wheat variety produced 7.5 tonnes of seed.

A planning meeting was held regarding the On-Farm Model Seed Development Program to inform key individuals at the AU regarding the progress of the program as well as some of the constraints. The program is moving along well in regards to seed multiplication and production at the Malakandher AU Farm. Some seed equipment for cleaning and processing has been requested through TIPAN. When this is received, training sessions will be organized and conducted for individuals responsible for producing quality seed for farmers. The Vice Chancellor who is the organizational head of the On-Farm Model Seed Development Program chaired the meeting.

Development of Provincial Research Master Plan (B4.2)

Considerable effort has been given to the development of the Master Research Plan for NWFP (MRP). Rough drafts of the Research Programmes of the 16 Technical Working Groups have been given to the MRP Advisory Committee (Drs. Kiramat Khan, Fazil Karim, Aslam Khan Khattak, Paigham Shah, Mr. Mehfooz Ali Shah and Mr. Mohammad Anwar) for review and input. Several meetings have been held during this quarter to review various parts of the Master Research Plan for NWFP 1993-2013.

The MRP Advisory Committee has been very dedicated to the task of developing the MRP and has provided some valuable guidance and suggestions. The MRP is nearing completion and should be finished in the near future.

Implement Outreach Program (C1)

Professor Fazal Hayat Taj, Chairman, Department of Agronomy has initiated his outreach project, "Efficacy of Trench vs Farmers Storage container Methods for Oil and Cereal Crop Seed". He has completed digging pits at the Malakandher University Farm and has placed seed of several crops (soybean, wheat, maize, sunflower and rice) underground in different types of containers (plastic, tin, grain bags, wooden boxes & cloth bags). Additionally, the various containers were also placed above ground in a seed storage shed. The viability of the seed will be tested over time to determine the best type of seed storage container as well as the value of trenches for seed storage. This study is also being repeated at Dagal. Professor Taj is also involved in

another outreach project entitled, "Effects of Different Sowing Methods and Irrigation Regimes on Yield Components of Maize".

Daan Jehangir Khan Khattak, Faculty of Crop production Sciences, has completed writing a brochure for outreach entitled, "The Correction of Micronutrient Deficiencies in Orchards".

Administrative Support System (D-1 b.3)

Assisted the TIPAN Team Leader and the Director of Works with the development of plans for the utilization of the new buildings on campus.

Plans for Next Quarter (October, November, December 1993)

1. Complete the Master Research Plan for NWFP.
2. Assist the Re-entry Committee with their program for Returning long-term trainees.
3. Follow-up on obtaining, tabulating and disseminating meteorological data from the 12 weather stations in the NWFP AU.
4. Assist with equipment repair and the procurement of needed spare parts.
5. Coordinate the Special Grants Program for returning long-term trainees.
6. Assist the Technical Working Groups in developing working papers on their commodity or area.
7. Help with the development of the AU Seed Production Unit.
8. Strengthen linkages among scientists on and off campus.
9. Assist with TDY of Dr. James Kaiser, Consultant in research station management.

PROJECT BACKSTOPPING

TIPAN Project Work Group

The Project Work Group (PWG) met three times during the quarter, on 26 July, 20 August and 15 September. The July meeting featured participation by Dennis Weller, USAID/Pakistan, who interrupted home leave to share his views on promoting sustainable elements with chances of acceptance at AU in the final year of the project. He noted that the strengthened professional base and physical plant infrastructure gives the university two elements from which improvements in the delivery of services can flow.

The August and September meetings concentrated on planning for post-project linkage. An NWFP Agricultural University Linkages Committee has been formed, and the PWG is serving as the linkages committee for the U.S. side. Details of linkage planning appear in a separate section.

Coordination Activities

In July the Campus Coordinator and Field Team met to review and plan for the balance of the year. The TDY plan was revised somewhat, but continued to emphasize assistance in the six areas identified in the 1992 project evaluation. A considerable allocation of effort in the area of strategic planning will be undertaken by outside entities. The University of Maryland's International Development Management Center was scheduled to conduct a sustainability seminar in Peshawar late in the quarter, as part of its centrally funded program. The Lahore University of Management Science (LUMS) was commissioned to prepare a management plan for the Agricultural University, to be direct-funded by USAID/Islamabad. Fourth quarter TDY's were planned in the areas of University Administration/Governance and Outreach. Additional TDY's for quarters one and two in 1994 were planned for these areas and, also, Equipment/Facilities Management, Communications Support, Research Planning and Operations, and Continuing

Education. A draft TDY plan for the remainder of the project was developed for discussion with the Vice Chancellor.

In response to a directive from USAID/PDM, a demobilization plan was developed. The plan contains program, personnel, commodity, training, and logistic elements and includes those areas of guidance provided by PDM. It provides a timetable to guide field and campus operations through a smooth transition to closeout. The draft plan, prepared in Peshawar, was reviewed and modified during August by field staff and the PWG. The Contractor's demobilization plan was transmitted to the Project Officer in mid-September.

Linkage Planning

With strong support from USAID, considerable effort was directed toward the development of a post-project linkage activity with sustainable features. Discussions in the field and at the home campus confirm the desire of the Agricultural University and its U.S. University partners for an enduring relationship. The Agricultural University formed a committee to study the issue and recommend program elements. The PWG is carrying out this assignment for the U.S. side.

Initial discussions by both groups concentrated on the following issues:

- What are the benefits of institutional linkages?
- With whom should linkages be formed?
- What should be the nature of the linkage agreement?
- What types of linkage activities should be encouraged?
- How will the linkage activities be supported?

The AU committee met at least once during the quarter, and the PWG twice, to discuss these and other issues. The AU committee assigned specific tasks to members to develop information and content to be included in the program.

The PWG discussed issues of structure and content. The issue of whether to have separate bilateral agreements between SUIC and NWFP-AU and UIUC and NWFP-AU was resolved in favor of a single three-party agreement. This will continue the collaborative arrangement so carefully and successfully developed during the course of the TIPAN Project. Structurally, the agreement will probably take a form consistent with normal interinstitutional agreements. A separate protocol will be developed to provide guidance for program areas, implementation, planning, monitoring and evaluation.

A draft of the general agreement was developed late in this quarter and forwarded to the Team Leader for review by the NWFP-AU Linkage Committee. We intend to complete review and have the agreement ready for signing by the end of the next quarter. Our goal is to have an executed agreement in place four to six months ahead of the PACD, and get a few activities under way in the first year. Success in implementing the linkage program will depend on the willingness and ability of all of the three parties to mobilize necessary resources. We recognize that this program will have to be self-financing and, for this reason, we should attempt in the early rounds only those types of linking activities that carry their own funding, building a base of experience that may be cited in the search for additional program funds.

Opportunities and Constraints

Progress in leadership appointments was made during the quarter. Professor S. Basit Ali Shah, Dean of the Faculty of Animal Husbandry and Acting Vice Chancellor, was confirmed as Vice Chancellor effective 19 August. Professor Basit was one of the earliest proponents of the TIPAN Project, played an important role for the Agricultural University in the design of the project, and has been a strong and consistent supporter of the reforms envisioned by the project.

Mr. S. Abdul Qadeem, designated Director/Outreach, was ultimately successful in his efforts to have his appointment canceled, and returned to his previous post of Director/Research. Professor S. Iqbal Shah, Head of the Department of Livestock Management, thus continued to serve as Acting Director/Outreach as an additional charge. The uncertainty of leadership within the Outreach Directorate during most of the quarter had an unsettling effect on the staff. The Acting Director has done an outstanding job of keeping two units functioning, but recognizes the obvious need for a full-time Director.

An unstable national political situation moved toward eventual resolution when the President and Prime Minister each resigned, and the nation adopted a caretaker government at Federal and Provincial levels until elections can be held in October.

At the AU, continuing differences between USAID/ENG and the construction contractor ENCORP frustrate TA, AU, and Contractor staff in attempts to integrate program and infrastructure. If the writer had been told in 1985 that with three quarters remaining in the life of the project no fixed date for turnover of a single structure could be determined, he would have laughed in derision. Yet, at this writing, that is precisely the case. In July the Campus Coordinator was told that certificates of substantial completion were being readied preparatory to turning over the Library, the Plant Sciences Building and four storage structures on the Malakandher Farm. In August USAID/ENG decided that a gas line check should be made, although the Sul Gas hookup has not been completed. It was thought existing gas lines would have sufficient pressure to run the test. Daytime pressure was found to be insufficient and it was suggested that the test be conducted at night. To the writer's knowledge, the testing has not yet been done, and the delay in turnover has been extended. Somehow, the writer is confident, blame for this delay will be fixed upon ENCORP by USAID/ENG, as is their norm. When this pathetic situation will be resolved is anyone's guess.

PARTICIPANT TRAINING

Third Quarter 1993 Principal Participant Training Activities

A. During this quarter, the UIUC-based International Program for Agricultural Knowledge Systems (INTERPAKS) provided a considerable amount of in-service training support to the outreach dimension of the NWFP Agricultural University. TIPAN funded the participation of a total of 13 outreach personnel in two short courses that were offered by INTERPAKS. Details on those participants and the courses are:

-- The July 15 to August 20 course on "Agricultural Technology: From Research to Extension to Farmers" was attended by the following six NWFP-AU outreach staff:

Nazir Ahmad, AU Livestock Management Department
Syed Asghar Hussain, AU Horticulture Department
Imtlaz Ahmad Khan, Entomologist - ARI/Tarnab
Abdul Malik Lughmani, Oilseed Botanist - ARS/Dhodlal
Gazi Aqilullah, AU Regional Outreach Program Leader
Baz Mohammad, AU Regional Outreach Program Leader

The course in which these six staff members participated was designed by INTERPAKS to meet the in-service training needs of extension/ outreach Subject Matter Specialists.

-- A course for Outreach/Extension Administrators on "Improving Organization and Management" was offered by INTERPAKS during the period September 7 through October 13 and was attended by seven TIPAN-sponsored participants. That seven-person NWFP delegation consisted of:

Akram Khan, Director General, Agriculture Extension, NWFP-AU
S. Badruddin, Deputy Director Agriculture, D. I. Khan
Mohammad Iqbal, Deputy Director Agriculture, Economics & Marketing, Peshawar
S. Nazakat Shah, Extra Assistant Director Agriculture (EAD), Abbottabad
Mumtaz Ahmad, Extra Assistant Director Agriculture, Extension, Bannu
Meera Khan, Deputy Program Leader, Outreach Directorate, NWFP-AU
S. Iqbal Shah, Acting Director of Outreach and Chairman, Livestock Management Department, NWFP-AU

B. A major training event during this quarter was the annual workshops and retreat held at SIUC from August 8 through 20. Twenty-five advanced-degree participants gathered for two weeks of workshops on the topics of communications skills and professional re-entry/reintegration. A weekend trip to Springfield was also included to visit the Illinois State Fair and the Lincoln sites. In his role as Educational Counselor, Dr. Sikandar Hayat traveled to Carbondale to represent the Embassy of Pakistan. Dr. Hayat's contributions to this annual event included presentation of a recent GOP Educational Policy Statement and a formal address at the workshop completion ceremonies.

The annual gathering of participant trainees for workshops and a retreat was initiated in 1986 and has become an important part of the TIPAN project. The 1993 workshops represented the final such gathering in the life of this project.

C. There was a heavy volume of participant trainee traffic back to Pakistan during this quarter. A total of 16 faculty/staff completed advanced degrees and should now be settling back into their roles in the NWFP-AU system. Details on participants who completed degrees during the third quarter are as follows:

NAME	UNIVERSITY	FIELD	DEGREE
Mansoor Ahmad	Indiana University	Instructional Tech.	M.S.
Manzoor Akbar	South Dakota State	Forage Breeding	M.S.
Sohail Akhtar	Colorado State	Cattle Feeding	Ph.D.
Shaukat Ali	Cornell University	Pomology	M.S.
Muhammad Bashir	Univ. of Illinois	Farm Management	Ph.D.
Anwar Hussain	Univ. of Minnesota	Agric. Economics	M.S.
Maqsood Iqbal	Univ. of Missouri	Insect Pathology	M.S.
Amjad Khan	Michigan State	Pomology	M.S.
Azim Khan	Mississippi State	Horticulture	M.S.
Shafqat Malik	Univ. of Missouri	Agric. Statistics	M.S.
Wall Muhammad	Univ. of Missouri	Agric. Extension	M.S.
Sadur Rehman	Kansas State	Wheat Breeding	M.S.
Khalida Shahnaz	Univ. of Illinois	Rural Sociology	Ph.D.
Badshah Wahid	North Dakota State	Cereal Technology	Ph.D.
Muhammad Zubair	Colorado State	Ornamental Hort.	M.S.
Mohammad Zulfiqar	Univ. of Florida	Citrus Diseases	M.S.

As we enter the fourth quarter of 1993, the following totals are reported:

- 43 participants are enrolled for advanced-degree study.
- 88 participants have completed advanced degrees (39 Ph.D. and 49 M.S.) in U.S. universities through TIPAN support.
- 70 participants have returned to Pakistan from non-degree training in the U.S. and at selected third-country sites.

- 11 participants have returned unsuccessfully from degree study in U.S. universities.

COMMODITY REPORT

In addition to the routine processing of requests for equipment and commodities from the project office in Peshawar, the following activities took place in this quarter:

An air-shipment of equipment and commodities was sent to the project office in July. On 11 September, a 20' x 20' container of the same type of equipment and commodities was shipped by sea to the NWFP-AU. These smaller shipments will also be sent more frequently.

At this same meeting, the following dates were established for the last shipments of equipment:

Last sea-shipment to leave Champaign: April 1994

Last air-shipment to leave Champaign: May 1994

These dates were established with the aim of having all of the remaining equipment yet to be ordered in place at the NWFP-AU by June 1994.

PROJECT REPORTS

This quarterly report includes a list of consultant, administrative, end-of-tour reports for all personnel serving on the TIPAN Project. Titles of these reports are listed in Appendix C. Copies of these reports are available upon request.

EXPENDITURE REPORT

Line item expenditures for November 1, 1984 to September 30, 1993 are shown in Table I. Table II shows line item expenditures reported for in-country support.

PREPARED BY DIANA GLASGOW
NOVEMBER 8, 1993

TIPAN EXPENDITURE REPORT
NOVEMBER 1, 1984 THROUGH DECEMBER 31, 1992
QUARTERLY 1993 AND TOTAL TO SEPTEMBER 30, 1993

	11/1/84 THRU 12/31/92	1ST QUARTER 1993	2ND QUARTER 1993	3RD QUARTER 1993	4TH QUARTER 1993	GRAND TOTAL THRU 9/30/93
I. SALARIES	\$3,855,493.02	\$197,081.39	\$187,015.61	\$121,888.22	\$0.00	\$4,361,478.24
II. FRINGE BENEFITS	531,128.78	33,679.83	31,328.20	21,001.74	0.00	617,138.55
III. INDIRECT COSTS	1,968,452.74	86,301.13	92,349.80	102,619.65	0.00	2,249,723.32
IV. TRAVEL & TRANSPORTATION	909,418.11	35,166.98	58,132.81	26,368.77	0.00	1,029,086.67
V. ALLOWANCES	761,292.04	26,962.12	16,148.14	13,764.10	0.00	818,166.40
VI. OTHER DIRECT COSTS	785,795.88	36,841.63	110,714.95	91,542.34	0.00	1,024,894.80
VII. TRAINING	7,920,531.84	388,650.52	279,237.58	325,938.42	0.00	8,914,358.36
VIII. EQUIPMENT ACE	3,136,065.79	2,403.98	105.17	960.00	0.00	3,139,534.94
IX. EQUIPMENT PROJECT	160,282.65	111,413.15	100,197.51	32,706.89	0.00	404,600.20
X. MISC TRAVEL EXP	0.00	0.00	0.00	0.00	0.00	0.00
XI. T O T A L	\$20,028,460.85	\$918,500.73	\$875,229.77	\$736,790.13	\$0.00	\$22,558,981.48

	OBLIGATED	EXPENDED	BALANCE AVAILABLE
TA/TRNG	21,638,960.00	18,979,624.29	2,659,335.71
TECHNICAL ASSISTANCE	11,170,445.00	10,065,265.93	1,105,179.07
TRAINING	10,468,515.00	8,914,358.36	1,554,156.64
ACE	3,200,000.00	3,139,534.94	60,465.06
EQUIPMENT PROJECT	2,000,000.00	404,600.20	1,595,399.80
SUBCONTRACT	175,565.00	35,222.05	140,342.95
SUBTOTAL	27,014,525.00	22,558,981.48	4,455,543.52
LOCAL FUNDS	0.00	829,211.76	(829,211.76)
GRAND TOTAL	27,014,525.00	23,388,193.24	3,626,331.76

	11/1/84 thru THRU 6/30/93	7/93	8/93	9/93	TOTAL	11/1/84 thru THRU 9/30/93
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1-5-40382 ACE

VIII. LIBRARY SUPPLIES 2120	106,850.09	0.00	0.00	0.00	0.00	106,850.09
VIII. SHIPMENT 4540	328,305.25	0.00	0.00	0.00	0.00	328,305.25
VIII. EQUIPMENT & SUPPLIES	2,703,419.60	0.00	0.00	960.00	960.00	2,704,379.60
XI. T O T A L	3,138,574.94	0.00	0.00	960.00	960.00	3,139,534.94

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A. Improve Education Program

Area of Involvement	Activities	Who	Outputs
A1 Instruction a) Faculty Expertise	1. Participant Training Program	- TL/TAT - AU - Selection Committee	- Identify remaining short-term training slots.
	2. Strengthen Re-Entry Program for P/Ts	- TL/TAT - Director Teaching - Director Research - AU Administration	- Re-entry seminar program. - Returned participant program.
b) Pedagogical Tools	1. Develop AV Center	- VC/TL - Communications Specialist/TAT - Director Outreach - Communications Coordinator/AU	- Determine equipment needs and initiate orders. - Recruit personnel and begin training.
	2. Student Evaluations	- Director Teaching - Deputy Director Teaching	- Develop and improve evaluation forms.
c) Grading System	1. Conduct grade distribution survey	- Director Teaching - Deans - Chairmen	- Monitor semester grade distribution for all faculties.
A2 Student Affairs a) Student Activities	1. Establish student record system	- Provost - Director Teaching - Deputy Director Teaching	- Improve computerization of student record system.
	2. Improve Intramural and Extra Curricular Program	- Provost - Deputy Provost - Director of Intramurals	- Evaluate existing programs and develop new programs.
b) Employment	3. Develop Placement & Human Resource Development Office	- VC - Provost - Placement Director	- Provide information of employment opportunities in agriculture to students. - Develop resume and employment test skills of agricultural students.
A3 Graduate Program	1. Establish graduate school	- VC - TL/TAT - Syndicate	- Working group prepare an agenda for establishing a graduate school. - Implement TDY report.
	2. Establish Departmental Seminar Program	- Subject Matter/TAT - Deans - Dept. Heads	- Continue existing seminars. - Develop a seminar program in departments without an existing program.
	3. Produce Thesis Manual	- TL/TAT - Director/Deputy Dir. Teaching - Faculty Committee	- Prepare final copy and publish.

Area of Involvement	Activities	Who	Outputs
	4. Establish Criteria and Standards for Ph.D. Programs	<ul style="list-style-type: none"> - Director Teaching - Deputy Director Teaching - VC - Deans - TAT - Syndicate/AUTA 	<ul style="list-style-type: none"> - AU working group to draft policy and standards. - Implement TDY report.
A4 Curriculum Development	1. Review and update Departmental Curricula	<ul style="list-style-type: none"> - TAT - Deans - Director Teaching - Dept. Heads 	<ul style="list-style-type: none"> - Departments and faculties recommend changes to Vice Chancellor.
a) Course Offerings	1. Develop department brochures	<ul style="list-style-type: none"> - Communications Coordinator/AU - Communications Specialist/TAT - Deans - Dept. Heads - Director of Teaching 	<ul style="list-style-type: none"> - Department brochures.
b) Department Programs	1. Develop department brochures	<ul style="list-style-type: none"> - Communications Coordinator/AU - Communications Specialist/TAT - Deans - Dept. Heads - Director of Teaching 	<ul style="list-style-type: none"> - Department brochures.
	2. Review and update Degree Requirements and Core Courses	<ul style="list-style-type: none"> - Director Teaching - Deans 	<ul style="list-style-type: none"> - Departments and faculties recommend changes to Vice Chancellor.
	3. Establish Internship Program	<ul style="list-style-type: none"> - Director Teaching - Deans 	<ul style="list-style-type: none"> - Internship Committee discusses internship options.
c) Course Content	1. Upgrade Course Syllabi Regularly	<ul style="list-style-type: none"> - Director Teaching - TAT - Department Chairmen - Deans - Professors 	<ul style="list-style-type: none"> - Revised syllabi.
	2. Produce Pakistani Agricultural Textbooks	<ul style="list-style-type: none"> - TL/TAT - Textbook Project Coordinator - Communications Specialist - Communications Coordinator 	<ul style="list-style-type: none"> - Complete remaining chapters. - Editor returns edited chapters for correction. - Initiate graphics for textbook chapters. - Second textbook to printer.

B. Research Program

Area of Involvement	Activities	Who	Outputs
B1 Develop Research Administration	- Strengthen Research Directorate	<ul style="list-style-type: none"> - Consultants - Director Research - TL/TAT - Director Finance 	<ul style="list-style-type: none"> - Develop computer program for financial management system. - Strengthen Planning, Monitoring and Development Unit. - Implement TDY report.
B2 Projectize Research Program	1. Identify funds to support research proposals	<ul style="list-style-type: none"> - Director Research - TAT - Faculty/Staff 	<ul style="list-style-type: none"> - PC-Is. - Project proposals. - Develop list and information on funding resources.
	2. Support Project Technical Review Committee	<ul style="list-style-type: none"> - Crop Specialist/TAT - Director Research - TRC 	<ul style="list-style-type: none"> - Utilize committee for Special Grants Projects.
	3. Special Grants Projects for long-term degree returnees	<ul style="list-style-type: none"> - Crop Specialist/TAT - Director Research - Vice Chancellor/TL - TRC 	<ul style="list-style-type: none"> - Review proposals and initiate research projects.
	4. Research activities within the faculties conducted under reviewed and approved projects	<ul style="list-style-type: none"> - Crop Specialist/TAT - Deans - Chairmen 	<ul style="list-style-type: none"> - Active approved research project file for each department.
B3 Improve Research Capability	1. Participant Training Program a) Long-term b) Short-term	<ul style="list-style-type: none"> - TL/TAT - AU Selection Committee 	<ul style="list-style-type: none"> - Return of completed degree participants. - Identify remaining short-term priority areas.
	2. Maintenance of weather stations at Agricultural Research Stations in NWFP and continue distribution of monthly data.	<ul style="list-style-type: none"> - Crop Specialist/TAT - Ag. Mechanization Officer - Director Research - Station Directors - Ag. Mechanization and Water Management Dept. 	<ul style="list-style-type: none"> - Maintain weather stations equipment. - Distribution of monthly weather data. - Order equipment/spares/needs.
	3. Implement the Livestock Extension and Development Program (LEAD) a) On-farm research 1) in conjunction with AU faculty and researchers 2) in collaboration with DDD and AHITI	<ul style="list-style-type: none"> - TAT - Outreach - AH Faculty - VRI - LDDD 	<ul style="list-style-type: none"> - Demonstrations and research projects. - Training of field staff.

Area of Involvement	Activities	Who	Outputs
	b) Prepare an On-Farm Livestock Research Manual which includes basic research design	- Outreach - TAT	- Manual and statistics software available.
	c) Support individual research, teaching and outreach programs and research station personnel	- TAT - Outreach - Others	- Evaluation of completed research. - New proposals prepared.
	4. Assess status of equipment, spare part requirements and new equipment needs and place new equipment orders	- TL/TAT - Crop Science Specialist/TAT - Station Directors - Dept. Chairmen - NARC Laboratory Equipment Repair Unit	- Computerized equipment lists. - Condition status of equipment and repair needs. - Priorization of new equipment needs. - Place orders for new equipment. - Develop a TDY scope of work.
	5. Development of AU Seed Production Unit	- Crop Science Specialist/TAT - Deans - Station Directors - Supdt. AU Farm - AU Seed Technologists	- Seed produced and marketed. - Seed technology training conducted.
	6. Train researchers to use farm economics in design/interpretation of agricultural research	- Rural Social Science Specialist/TAT - Cont. Ed. Specialist/TAT - Crop Specialist/TAT - Rural Social Sciences Staff - Cont. Education Staff	- Reports with examples of economic analysis. - Research proposals developed that include economic analysis.
	7. Improved linkages between AU research workers and international centers	- Crop Specialist/TAT - Station Directors - Deans - Chairman - Librarian	- Expand germplasm and professional exchanges. - Participation in international meetings.
B4 Develop a NWFP Research Plan	1. Develop recommendations on Livestock Research Needs	- TAT - Outreach	- Preparation of On-Farm Livestock Research Manual.
	2. Development of Provincial Research Master Plan	- TL/TAT - Director Research - AU staff - Others	- Technical Working Groups reports. - Coordination of initiatives for research plan development. - Plan completed and distributed.

C. Develop Outreach Program

Areas of Involvement	Activities	Who	Outputs
C1 Implement Outreach Program	1. Institutionalize Outreach Program	<ul style="list-style-type: none"> - VC - Directors/Outreach/Teaching/Research - TAT 	<ul style="list-style-type: none"> - Staff with split-assignments as subject matter specialists. - Job descriptions. - Appointment of full-time Director of Outreach - Prepare SNE for Outreach positions and activities.
	2. Establish Annual Evaluation and Planning Process	<ul style="list-style-type: none"> - Continuing Education Specialist - Director Outreach 	<ul style="list-style-type: none"> - Development of plans of work.
	3. Continue the Livestock Extension & Development Program (LEAD) a) Demonstration and Training Sessions	<ul style="list-style-type: none"> - TAT - Outreach - AH Faculty - VRI - LDDD 	<ul style="list-style-type: none"> - Planning sessions. - Demonstrations.
	b) Preparation of a Livestock Extension Manual	<ul style="list-style-type: none"> - Outreach - AH Faculty 	<ul style="list-style-type: none"> - Development of manual for publication.
	c) Sheep and Goat Development Program	<ul style="list-style-type: none"> - AU - TAT - Others 	<ul style="list-style-type: none"> - Increase of sheep for distribution at Jabba. - Staff stability at Jabba.
	4. Implement Technology Development and Information Transfer	<ul style="list-style-type: none"> - Outreach staff - Agricultural Extension staff - AU researchers - TAT - TDYs 	<ul style="list-style-type: none"> - Field days conducted at stations and farmers' fields. - Technologies tested by FSR and Adaptive Research. - Village information boards. - Subject Matter Specialists Workshops - TDY report with recommendations.
	5. Develop Women's Outreach Program	<ul style="list-style-type: none"> - VC/TL - Director Outreach - Continuing Education Specialist - TDY 	<ul style="list-style-type: none"> - Develop women's outreach plan of work. - Women's Workshops held. - TDY report with recommendations.
	6. Participant Training Program a. Short-term	<ul style="list-style-type: none"> - TL/TAT - AU Selection Committee 	<ul style="list-style-type: none"> - Return of completed degree participants. - Identify remaining short-term priority areas.
	7. Prepare Outreach Materials by Discipline	<ul style="list-style-type: none"> - TAT - AU Faculties/Research - Outreach - Communications 	<ul style="list-style-type: none"> - Identify subject matter specialists. - Implement Special Grants Projects for Outreach.
	8. Farming Systems Research	<ul style="list-style-type: none"> - Outreach - Research - TAT - Agriculture Extension - Farmers 	<ul style="list-style-type: none"> - FSR program in Mansehra. - Planning for regional workshops.

Areas of Involvement	Activities	Who	Outputs
C2 Continuing Education Division	1. Institutionalize Continuing Education Division	<ul style="list-style-type: none"> - AU administration - Continuing Education Specialist/TAT - Director Continuing Education 	<ul style="list-style-type: none"> - Support personnel for Continuing Education. - Implement TDY report.
	2. Conduct In-Service Training Program	1st Level <ul style="list-style-type: none"> - Cont. Education Specialist/TAT - Reg. Prog. Leaders - Director Outreach - Director Cont. Education 2nd Level <ul style="list-style-type: none"> - AU Faculty/Staff 	<ul style="list-style-type: none"> - Plan for training workshops. - Workshops conducted.
	3. Organize Short-Term Training Programs	<ul style="list-style-type: none"> - Station Directors - Department Chairman - Selection Committee - TAT 	<ul style="list-style-type: none"> - Plan for short-term training needs.
	4. Sponsor conferences, seminars and workshops	<ul style="list-style-type: none"> - Director Cont. Education - Director Outreach - Organizing faculty and staff - Cont. Education Specialist/TAT 	<ul style="list-style-type: none"> - Workshops organized for external agencies.
C3 Development and utilization of the Communications/Publications Division	1. Develop Communications Division	<ul style="list-style-type: none"> - Vice Chancellor - TL/TAT - Communications Coordinator - Communications Specialist/TAT 	<ul style="list-style-type: none"> - Prepare a new PC-I for positions not approved in revised C-1. - Develop plan of split-assignments to support the division.
	2. Development and utilization of Multi-Media Capability	<ul style="list-style-type: none"> - Communications Coordinator - Communications Specialist/TAT - Directors Outreach/Research/Teaching/Cont. Education - Information Officer 	<ul style="list-style-type: none"> - Planning for multi-media needs for teaching, research and outreach. - Prepare publications and news releases. - Develop computer graphics/desktop publishing training activities.
C4 Computer and Equipment Support Unit	1. Establish Computer and Equipment Support Unit	<ul style="list-style-type: none"> - VC - TL - AU Administration - AU Computer Committee 	<ul style="list-style-type: none"> - Develop plan and implement Mobile Repair Unit. - Computers repaired on timely basis. - Determine equipment needs and initiate orders.
C5 Link AU & Merged Research Capability with NWFP Ag. Ext. System	1. Incorporation of farm economics in field trials and extension work	<ul style="list-style-type: none"> - Cont. Ed./TAT - Crop Science/TAT - Director Outreach - AU Economists - Station Staff 	<ul style="list-style-type: none"> - Initiate manual on NWFP Farm Management.
	2. Develop AU methodology for diagnosing problems, potentials and agriculture research/extension priorities in key NWFP locations	<ul style="list-style-type: none"> - IDS Staff - Ag. Econ Staff - Outreach - Research Stations 	<ul style="list-style-type: none"> - Initiate additional research in D.I. Khan. - Conduct diagnostic surveys.

D. Develop and Implement an Improved Administrative Structure and Governance System

Areas of Involvement	Activities	Who	Outputs
D1 Administrative Support System a) Support Administration	1. Develop Planning, Development and Monitoring Cell a) Support Sustainability Committee	- VC - TL/TAT - Director of Research - Planning, Monitoring & Development Cell - Sustainability Committee - Consultant firm	- Provide space for Planning, Monitoring & Development Cell. - Improved ability to plan, monitor and prioritize AU development projects and institutionalize needs. - Draft reports of sustainability committee. - Development of business plan.
b) Support Departments/ Stations	1. Strengthen Operations and Maintenance	- Director Works/Staff - TAT - ENCORP	- Prioritize needs and initiate short-term training to maintain new buildings and services. - Implement TDY report.
	2. Establish university vehicle pool	- VC - Director Finance - TL/TAT	- Develop an updated vehicle use policy.
	3. Develop plans for utilization of the new and existing buildings on campus	- VC - Space Committee - Deans/Chairmen - Director Works - TL/TAT	- Initial plans for orderly occupation of new space and reassignment of old space. - Initial plans for ordering equipment and other supplies for new space.
	4. Revise and Strengthen the University Procurement Inventory and Central Store System	- Director Finance - TAT - AU staff - Consultant firm	- Improved inventory record system. - Training as part of computerized financial management system.
D2 Financial Management System	1. Implement an Improved Financial Records and Reporting System	- VC - Director Finance - TL - Director Research - Consultant firm	- Computer programs developed. - AU staff identified for implementation and training begins.
D3 Basic Learning Resource System	1. Strengthen Library Service a) Improve station support	- Librarian - TAT	- Prioritize library acquisitions. - Train staff and users of database. - Develop plan and implement Mobile Unit.
	2. Strengthen Communications and Publications Division	- VC/TL - Director Outreach - Communications Specialist/TAT - Communications Coordinator	- Prepare a new PC-I and develop staff training plan. - Order equipment for new facilities.
	3. Enhance computer literacy and utilization	- Director Cont. Education - Cont. Education/TAT - Chairman, Maths/ Statistics/ Physics and Computer Science - Computer Laboratory Personnel - AU Computer Committee	- Provide service and training to users on campus and research stations. - Computer technician on permanent status.

Areas of Involvement	Activities	Who	Outputs
D4 Personnel System	1. Develop an Annual Review and Reporting System	<ul style="list-style-type: none"> - VC - Deans - Director Research Chairmen - Station Directors - TAT 	<ul style="list-style-type: none"> - Revision of ACR. - Annual progress and planning reports from units.
	2. Develop a uniform personnel code for merged system	<ul style="list-style-type: none"> - VC - TL/TAT - Director Research Registrar/Deputy Registrar - Consultant firm - AU staff 	<ul style="list-style-type: none"> - Strategy for implementation of a Unified Personnel System.

APPENDIX B

PROJECT PERSONNEL

The following is a summary of TIPAN Project personnel from 1 November 1984 to date.

I. Staff--Currently on Assignment

A. Resident Field Staff

1. Team Leader & Institution Development Specialist	Oval Myers	11/16/91-present
2. Private Sector Specialist	Rodney Fink	02/01/90-present
3. Continuing Education Specialist	Donald E. Kuhlman	01/14/92-present
4. Crop Science Specialist	Farrell Olsen	02/01/92-present

B. Home Office Personnel

1. Campus Coordinator	Thomas A. McCowen	25%	11/01/84-present
2. Senior Project Advisor	William N. Thompson	45%	11/01/84-8/20/88
		0%	08/21/88-present
3. Training Officer	John W. Santas	25%	11/01/84-8/20/86
		33%	08/21/86-12/31/88
		67%	01/01/89-present
4. Secretary - Training Officer	Dee Dee Hines	33%	07/16/86-present
5. Secretary - Campus Coordinator	Phyllis Sandwell	100%	10/31/89-present
6. Accountant	Diana Glasgow	15%	02/28/86-present
7. Principal Representative - SIUC	Gil Kroening	25%	01/02/92-present
8. TIPAN Secretary-SIUC	Claudia Roseberry	50%	07/23/90-present

II. Staff Who Have Completed Assignment

A. Resident Field Staff

1. Team Leader & Institution Development Specialist	Errol D. Rodda	06/01/85-03/14/87
Institution Development Specialist		03/15/87-08/20/87
2. Teaching Program Specialist	Martin V. Waananen	08/11/85-08/20/87
3. Research Station Development Specialist	Joseph H. Marion	09/30/85-09/30/87
4. Rural Social Sciences Specialist (Deceased)	Frederick C. Fliegel	08/30/87-09/11/87
5. Research Program Specialist (Deceased)	Raymond G. Cragle	07/13/85-03/14/87
Interim Team Leader & Research Program Specialist		03/15/87-05/25/87
Team Leader		05/26/87-08/20/87
Team Leader & Institution Development Specialist		08/21/87-06/30/89
6. Outreach Program Specialist	R. William Seiders	06/21/85-08/21/89
7. Research Program Specialist	Jack J. Bond	02/01/88-08/20/90
8. Team Leader & Institution Development Specialist	Gilbert Kroening	07/24/89-12/01/91
9. Teaching Program Specialist	Everett D. Edington	06/06/88-12/31/91
10. Continuing Education/Outreach	Ronald G. Dedert	01/01/90-12/31/91
11. Animal Husbandry Specialist	Carl L. Hausler	01/22/88-02/24/92
12. Crop Sciences Specialist	Rodney Fink	02/01/90-01/31/92
13. Private Sector Specialist	Rodney Fink	01/01/92-06/30/92
14. Rural Social Science Specialist	David W. Brown	03/21/90-05/31/93

B. Home Office Personnel

1. Principal Representative - SIUC	Oval Myers	25%	07/ /88-11/24/91
2. TIPAN Secretary - UIUC	Kimberly Oliver		02/04/85-09/06/85
3. TIPAN Secretary - UIUC	Beth McKown		10/14/85-06/11/89
4. TIPAN Secretary - SIUC	Shelia Tate-Wilson		12/01/85-07/15/90
5. International Agriculture Development Specialist	Karen Russon		04/01/89-06/30/91
6. International Agriculture Development Specialist	Jodee Conner	25%	08-11/91-01/12/93
7. International Agriculture Development Specialist	Pamela Woodard	25%	01/01/90-05/19/93

C. Short-Term Technical

1. Institution Development	Errol D. Rodda		03/15/85-04/05/85
2. Teaching Program	Martin V. Waananen		04/16/85-05/08/85
3. Telecommunications	Lawrence P. Bontempo and Lynn D. Lafferty		04/85
4. Rural Social Sciences (Deceased)	Frederick C. Fliegel		11/09/85-12/03/85
5. Animal Husbandry	Howard H. Olson		11/25/85-12/05/85
6. Microcomputing	Gary Johnson		02/05/86-03/07/86 (TIPAN fund supported) 10/12/87-11/07/87 (UIUC fund supported)
7. Microcomputing	Anthony Kerber		02/08/86-10/31/86
8. Microcomputing	Zainul Azizan		02/05/86-03/07/86
9. Improvement of Instruction & Horticulture	William George		03/29/86-04/29/86
10. Livestock Facility Design	James Curtis		03/29/86-04/29/86
11. Production Economist	Duane Erickson		05/03/86-05/30/86 07/19/91-08/21/91
12. Agricultural Mechanization	Robert Wolff		05/10/86-06/06/86
13. Weed Control Specialist	Emerson Nafziger		02/07/87-03/10/87 11/06/91-11/26/91
14. Rural Social Sciences	Andrew Sofranko		02/14/87-03/10/87 07/04/90-07/29/90
15. Forage Production	Herbert Portz		03/06/87-04/09/87
16. Pre-assignment Orientation	Cari L. Hausler		10/06/87-10/16/87
17. Pre-assignment Orientation	Jack J. Bond		12/12/87-12/23/87
18. Pre-assignment Orientation	Everett D. Edington		01/05/88-01/18/88
19. Plant Pathology	James B. Sinclair		08/06/88-08/19/88
20. Plant Pathology	Richard E. Ford		08/07/88-08/15/88
21. Library Information Specialist	Jane S. Johnson		11/26/88-12/20/88 07/01/89-07/25/89 01/31/90-02/27/90 06/26/91-08/01/91 04/13/92-05/12/92
22. Research Progress of Parvez Iqbal Paracha	Kirvin L. Knox		01/21/89-01/31/89
23. Soils Research	Theodore R. Peck		03/04/89-04/14/89
24. Pre-assignment Orientation	Ronald G. Dedert		09/11/89-09/22/89
25. Pre-assignment Orientation Private Sector Advisory	Rodney J. Fink		09/30/89-10/03/89 02/01/92-07/31/92
26. Research Progress of Gulzar Ahmad	John Gallian		10/29/89-11/16/89
27. Audiovisual	Douglas Bedient		11/01/89-11/30/89

28. Technical Writing	Ray Woodis/Paul Hixson	11/29/89-12/16/89 04/28/90-06/22/90
29. Pre-Assignment Orientation	David Brown	12/10/89-12/17/89
30. Research Progress of Mohamma Qadir Asrar	Joan Fley	01/24/90-02/16/90
31. Quantitative Agricultural Policy Analysis NWFP-AU	Alain deJanvry and Elisabeth Sadoulet	05/01/90-06/03/90
32. Agricultural Economics	Charles Nelson	10/20/90-11/20/90
33. Reentry & Professional Integration of Returned Participants	Oval Myers, Jr.	11/22/90-12/22/90
34. Development of Sheep & Goat Production	Warren Foote	09/07/91-10/12/91
35. Curriculum Specialist	William Doerr	10/03/91-11/13/91
36. Agrometeorology	Steven E. Hollinger	01/18/92-02/24/92
37. Communications Production Specialist	J. Cordell Hatch	04/29/92-06/19/92 08/16/92-09/16/92 01/20/93-05/02/93 07/20/93-08/30/93 08/15/92-09/14/92
38. Maize Breeding Program	Dale M. Steffensen	08/15/92-09/14/92
39. Dairy Improvement & Production Specialist	Roger Shanks	09/13/92-10/09/92
40. Outreach Specialist in Program Development	Peter Bloome	01/17/93-02/02/93
41. Thesis Advisor Support	Layle Lawrence	01/17/93-02/03/93
42. Research Management in the NWFP-AU	Don Holt	04/02/93-04/30/93
43. Development of a Graduate School at NWFP-AU	Richard E. Falvo	04/03/93-04/22/93
44. Developing Insect and Plant Disease Management Programs for Fruit & Vegetables in NWFP-AU	Roscoe Randell and Steve Ries	04/13/93-05/13/93
45. Operations and Maintenance	Harry D. Wirth	04/14/93-05-12/93
46. Draft Master Research Plan for NWFP	Don Oelsigle	05/01/93-05/30/93
47. Continuing Education	Linz C. Brown	05/05/93-06/02/93
48. Extension Methodology & Teaching Skills	Robert Frank and Dennis Thompson	05/11/93-06/11/93
Administrative		
1. Interim Team Leader	William N. Thompson	02/07/85-03/25/85
2. Interim Team Leader	Thomas McCowen	04/01/85-05/31/85
3. Participant Training	John Santas	11/23/84-12/14/84 11/15/85-12/03/85 10/05/87-10/22/87 04/10/89-04/22/89 02/03/90-02/20/90 05/15/91-06/01/91 03/18/92-04/09/92
4. Administrative Visit	Thomas McCowen	11/24/84-12/14/84 01/04/86-02/03/86 02/21/87-03/10/87 06/27/87-07/17/87 08/27/88-09/12/88 01/21/89-02/04/89 08/16/89-09/02/89 01/31/90-02/17/90 10/13/90-11/06/90 08/04/91-08/28/91 03/18/92-04/11/92 10/04/92-10/31/92

5. Administrative Visit	John J. Nicholaides	09/18/86-09/25/86 02/18/88-02/27/88 08/27/88-09/12/88 04/30/90-05/07/90 09/15/90-09/21/90 12/02/92-12/12/92
6. Monitoring and Evaluation	William N. Thompson	02/07/87-03/10/87
7. Executive Visit	John R. Campbell	03/14/87-03/27/87
8. Executive Visit	James A. Tweedy	03/14/87-03/27/87 03/25/89-04/08/89 04/30/90-05/07/90
9. Consultant in Administration	James A. Tweedy	06/13/87-07/03/87
10. Interim Team Leader	Russell T. Odell	10/06/87-11/24/87
11. Technical and Administrative Consultant	Gilbert Kroening	11/23/87-12/22/87 08/27/88-09/12/88
12. Executive Visit	W. R. Gomes	03/25/89-04/08/89
13. Participant Training	Pamela Woodard	10/13/91-11/06/91
14. Administrative Visit	Orville Bentley	12/02/92-12/12/92

APPENDIX C

TIPAN CONSULTANT'S REPORTS

1. Martin V. Waananen - Teaching Program
2. Frederick C. Fliegel - Rural Social Sciences (deceased)
3. John W. Santas - Training Program
4. Howard H. Olson - Animal Husbandry
5. Thomas A. McCowen - Administrative
6. William L. George - Teaching Program and Horticulture Program
7. James O. Curtis - Livestock Facility Design
8. Gary V. Johnson - Microcomputing
9. Zainul Azizan - Microcomputer Laboratory Set-up
10. Duane E. Erickson - Production Economics
11. Anthony S. Kerber - Microcomputer Instruction and Coordination
12. Andrew J. Sofranko - Rural Social Sciences
13. Emerson D. Nafziger - Weed Science/Agronomy
14. William N. Thompson - NWFP AU Monitoring and Evaluation
15. Herbert L. Portz - Forages

16. James A. Tweedy - Development of Administrative and Academic Procedures
17. Thomas A. McCowen - Program Planning and Coordination
18. Carl Hausler - Orientation/Interview
19. Russell Odell - TIPAN – A View after Design
20. Gary Johnson - Microcomputer Service and Software
21. Gilbert Kroening - Program Administrative Support
22. Everett Edington - Orientation/Interview
23. J. B. Sinclair and R. E. Ford - Plant Pathology
24. G. H. Kroening, T. A. McCowen & J. J. Nicolaidis - Planning for Phase I Extension
25. Jane Johnson - Library and Information Specialist
26. Kirvin L. Knox - Research Progress of Parvez Iqbal Paracha
27. Theodore R. Peck - Soil Science Research
28. Donald E. Kuhlman - Orientation/Interview
29. Ronald G. Dedert - Orientation/Interview
30. Rodney J. Fink - Orientation/Interview
31. Jane S. Johnson - Library and information Specialist
32. Doug Bedient - Audiovisual
33. Paul Hixson & Ray Woodis - Preworkshop Planning
34. David Brown - Orientation/Interview
35. Jane Johnson - Library and Information Specialist
36. Andy Sofranko - Rural Sociology & Agricultural Economics
37. Paul Hixson & Ray Woodis - Technical Writing & Research Proposal Workshops
38. Oval Myers - Reintegration of Trainees into the Teaching, Research and Outreach Programs of the NWFP Agricultural University
39. Jane Johnson - Library and Information Specialist
40. Duane Erickson - Production Economics and Farm Management
41. Warren Foote - Development of Sheep and Goat Production in the NWFP Research, Extension & Institutional Needs

42. William Doerr - An Assessment of Various Aspects of the Teaching Program of the Agricultural University, NWFP
43. Emerson D. Nafziger - Weed Science/Agronomy
44. Steven E. Hollinger - Agrometeorology
45. Jane S. Johnson - Microcomputer Systems Applications at the NWFP Agricultural University
46. J. Cordell Hatch - Communications Production Specialist
47. Rodney Fink - Private Sector Advisory
48. J. Cordell Hatch - Communications Production Specialist
49. Dale Steffensen - High Altitude Maize in the NWFP
50. Jane Johnson - Progress in Microcomputer Usage for Information Systems at the NWFP-AU
51. Roger Shanks - Dairy Improvement and Production Specialist
52. Layle Lawrence - Thesis Advisor Support for Khalid Nawab & Mohammad Anwar
53. Peter Bloome - Role of Outreach Specialist in the Transfer of Agricultural Technology
54. Jane Johnson - Sustainable Information Systems at the NWFP-AU
55. Rodney J. Fink - Special Report, Attitudinal Survey
56. Don Holt - Research Management in the NWFP-AU
57. Richard E. Falvo - Development of a Graduate School at NWFP-AU
58. Roscoe Randell & Steve Ries - Developing Insect and Plant Disease Management Programs for Fruit & Vegetables in NWFP-AU
59. Harry D. Wirth - Operations & Maintenance
60. Don Oelsliger - Draft Master Research Plan for NWFP
61. Linz C. Brown - Continuing Education
62. Robert Frank & Dennis Thompson - Extension Methodology and Teaching Skills
- *63. Cordell Hatch - Communications Production Specialist

ADMINISTRATIVE REPORTS

1. T. A. McCowen - 21 February - 10 March 1987
2. J. W. Santas - 5 October - 23 October 1987
3. T. A. McCowen - 21 January - 4 February 1989
4. J. W. Santas - 10 April - 22 April 1989
5. T. A. McCowen - 16 August - 2 September 1989
6. T. A. McCowen - 31 January - 17 February 1990
7. J. W. Santas - 03 February - 20 February 1990
8. T. A. McCowen - 13 October - 6 November 1990
9. J. W. Santas - 15 May - 1 June 1991
10. T. A. McCowen - 04 August - 28 August 1991
11. Pam Woodard - 13 October - 6 November, 1991
12. J. W. Santas - 18 March - 09 April, 1992
13. T. A. McCowen - 18 March - 11 April, 1992

EXECUTIVE VISIT REPORTS

1. James A. Tweedy & W. R. Gomes - 25 March - 8 April 1989
2. James A. Tweedy & J. J. Nicholaides III - 30 April - 7 May 1990

END-OF-TOUR REPORTS

1. Joseph H. Marion - Research Station Development & Management
2. Errol Rodda - Team Leader & Institutional Development Specialist
3. Martin V. Waananen - Agricultural Teaching Program Specialist
4. R. William Seiders - Outreach Specialist
5. Jack Bond - Research Program Specialist
6. Everett Edington - Teaching Specialist
7. Ron Dedert - Outreach Specialist
8. Gil Kroening - Team Leader & Institutional Development Specialist
9. Carl Hausler - Animal Husbandry and Livestock Outreach
10. Rodney Fink - Crop Science Specialist
11. David Brown - Rural Social Science Specialist

*report filed during this reporting quarter