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# TIPAN

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



**Northwest Frontier Province, Pakistan**

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

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

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**TIPAN QUARTERLY REPORT 94-I**  
**1 JANUARY 1994 - 31 MARCH 1994**

**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**

**31 March, 1994**

## **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**

- Four long-term degree participants from the campus completed their degree requirements.
- Horticulture textbook delivered to the printer.
- Thesis manual printed and distributed to departments.
- Mohammad Idris, Lecturer In English, sent for short-term training at Southern Illinois University at Carbondale.
- Director of Teaching, Hafiz Inayatullah, and Assistant Director of Teaching and Controller of Examination, Noor Badshah, visited the Aga Khan University and the Lahore University of Management Sciences to observe and discuss student record keeping and examination control.

#### **Research**

- Six long-term degree participants from the research stations completed their degree requirements.
- Provincial Master Research Plan was printed and distributed.

- Sprinkler irrigation system was installed at the research station at Karak.
- Oilseeds Workshop at Tarnab for researchers and extension staff.
- Special Research Projects for returnees were peer viewed and monitored.
- Monthly data from the weather stations was assembled and distributed.
- Data for a NWFP-AU directory of individual researchers training and research expertise was being compiled by the Re-Entry Committee.
- Space allocation plans for the new Plant Science building were developed.
- Dr. Robert Wolff, Staff Planning TDY, worked with three campus departments, Agricultural Mechanization, Agronomy, and Entomology and the Sugar Crops Research Institute, Mardan to develop individual job descriptions and annual plans of work based on split assignment of teaching, research and outreach.
- The Planning, Monitoring and Development Cell moved into their quarters in the new Administration building.
- Dr. Mir Hatam, Agronomy, and Mr. Mohammad Bashir, ARS, Dhodial, presented research papers at The World Soybean Research Conference V in Thailand. Mr. Bashir was partially supported by TIPAN and partially by The Conference and Dr. Hatam was fully supported by the Conference.

### Outreach

- Dr. Cordeil Hatch, Communications TDY, returned to assist the Division of Communication Services in utilization of new equipment and new building space.
- Field days at Serai Naurang, Lakki, and Karak attracted 400 farmers with presentations by campus and research station staff.
- An Entomology short course for Extension staff was held at Tarnab taught by campus and research station staff.
- Women's programs on livestock management and human health issues were held at Jaghra and in the Gadoon-Amazai region with 215 women in attendance.
- Three training programs were held by Continuing Education, computer utilization at the Agricultural Research Institute, D.I. Khan, horticulture and agronomy for Extension field assistants at Chitral, and seed technology at the campus.
- Dr. Orville Bentley, Outreach and Administration TDY, participated in the Provincial Extension Workshop and advised on structural and administrative linkages of education, research and extension.
- A Livestock Extension manual was published by Dr. Meera Khan, Outreach, with Director Communications Mohammad Ayaz, and Dr. Donald Kuhlman, Continuing Education Specialist as co-editors.
- Dr. Meera Khan, Livestock Program Leader and Mr. Akram Khan, Regional Program Leader, D.I. Khan retired from service in the Directorate of Outreach.

- Mr. Habib-ur-Rehman, former Soils Director, Tarnab, assumed the duties of Director of Outreach.
- Dr. Donald Kuhlman, Continuing Education Specialist, returned to the US after 26 months of dedicated assistance to the Directorate of Outreach.

### **Administrative Structure and Governance System**

- Dr. James Tweedy, Institutional Development TDY, assisted the AU in policies and planning for the formation of a Foundation, a Grants and Contracts Unit, and an Alumni Association.
- Mr. Harry Wirth, Operations and Maintenance TDY, assisted the Director of Works and his staff in developing plans and procedures for the operation and maintenance of the new buildings.
- The Director of Works, Major (Retd.) Sardar Alam, and an assistant engineer, Mr. Sajjid, visited Southern Illinois University at Carbondale for short-term training in building operations and maintenance.
- The NWFP-AU prepared supplemental SNEs and PC-1s for the GOP and GONWFP to support staff and program needs after TIPAN.
- The Steering Committee for the Peat Marwick computerized financial management system was active in stimulating installation and training activities.
- Dr. Farrel Olsen, Crop Science Specialist, assumed new duties in assisting the AU in planning and promotional activities.
- A Planning Committee for building inauguration was formed with several specialized sub-committees. The involvement of many individuals in these activities demonstrated constructive decentralization and empowerment.

### **Team Leader's Comments**

As noted in the proceeding accomplishment section and individual TAT reports, this was another productive quarter. The stimulus of five TDYs in different areas greatly assisted the small long-term TAT in accomplishing objectives. It is also observed that the realization that TIPAN is within a few months of completion has created a heightened collegial atmosphere between the NWFP-AU staff and the TAT. In this section I will briefly discuss how certain project activities and other factors impact on institution building goals and sustainability.

### **Teaching**

- The completion and printing of a Thesis manual will bring added uniformity to the thesis process and demonstrate the AU's commitment to quality graduate education.
- The delivery of the Horticulture textbook to the printer is a significant accomplishment since it is the first technical textbook with detailed figures and tables and required considerable editorial verification to insure accuracy. The lessons learned with this text will make editing the others easier and more rapid.
- The short-term training of Mr. Mohammad Idris in English should help in the utilization of the language training facility in the new building. English is the medium of instruction and improved language skills will help students in finding employment after graduation.

## Research

- The TDY program of Dr. Robert Wolff in Staff Planning utilized three departments and one research station as models for developing realistic job descriptions emphasizing split-assignments. More importantly than job descriptions was the followup step of developing an annual plan of work to accomplish the proposed assignments. There is no doubt that the increased accountability being demanded by the UGC and the province is a driving force in the AU's increased attention to the planning process.
- The participation of Dr. Mir Hatam and Mr. Mohammad Bashir in The World Soybean Congress V in Thailand demonstrates tangible evidence that those who conduct quality research will receive recognition and support. While promotion and pay increases may be difficult to accomplish within the personnel system other types of meritorious recognition is possible and is occurring.
- The installation of a sprinkler irrigation system at the agricultural research station at Karak represents a major step in allowing research and seed increases to occur even under adverse environmental conditions. This installation also demonstrated the professional interaction of campus and research station scientists.

## Outreach

- Field days were conducted at the research station at Serai Naurang, and at Lakki and Karak. Approximately 400 farmers attended plus involvement by extension and district administration. The field day concept seems to be gaining acceptance with initial plans originating from the researchers.
- Women's programs on livestock management and family health were arranged for some 225 women at Jaghra and in the Gadoon-Amazai area. The programs were coordinated by Mrs. Ejaz Begum, Outreach, but included other health related organizations as part of the programs. The multi-subject type of program should be encouraged since it allows women to learn about more than one area of their responsibilities and maximizes time while minimizing training costs.
- The Livestock Extension and Development primer prepared by Dr. Meera Khan, Outreach, presents a strategy for extension activities in the livestock sectors. The livestock sector has been neglected by both research and extension in the past but its economic importance to farmers and consumers seems to be increasingly recognized.
- A new Director of Outreach, Habib-ur Rehman, was named late in the quarter. One must hope that this will bring stability and direction to this important TIPAN initiative which has been without a permanent Director for over a year.
- Dr. Donald Kuhlman, Continuing Education Specialist, departed from his duties after 26 months of dedicated and enthusiastic service. He and his predecessors have worked hard to demonstrate the role of faculty and researchers in the technology transfer process. The concept is now better understood and practiced but its practice in the future is heavily dependent on provincial funding.

## Administrative Structure and Governance System

- Dr. James Tweedy, Institutional Development TDY, provided important assistance to the NWFP-AU in developing policy and documents for the formation of a Foundation, a grants and contracts unit, and an Alumni Association. Many reviews and the AU's Sustainability Committee have recognized these as important to AU development. These entities may

appear straight forward but require a lot of work and commitment by the AU to bring them to closure.

- Dr. Orville Bentley, Outreach and Administration TDY, provided counsel to the AU administration, the TAT team, and selected UGC and provincial leaders on the administrative policies needed to implement integrated academic, research and outreach activities as has been envisioned by TIPAN. Dr. Bentley's presence as an experienced senior consultant gave credence and support to ideas regularly put forward by The Vice Chancellor and TIPAN Team Leader to government officials.
- Short-term training in buildings operation and maintenance for the Director of Works, Sardar Alam, and his assistant engineer Sajjid Ali, was conducted at Southern Illinois University at Carbondale. The training was well received and extremely useful to the DOW who already has shown improved understanding of the planning and discipline that will be needed to maintain the expanded physical plant.

### **Problems/Constraints**

- The failure to appoint a full-time Director of Outreach until the latter part of this quarter was a major constraint to the development of the Outreach Program for over a year. The recent retirements of one regional program leader and the livestock program leader combined with the appointment of another regional program leader as a project director have left the Outreach Directorate with few experienced leaders. It is time for the verbal commitment to Outreach to be supported by identifying good replacements for the program leader positions.
- Most of the critical positions in Communications, Continuing Education and Maintenance have been requested in SNEs and PC-1s prepared by the AU. However the people who will fill these positions if approved may need additional training which can not be provided by TIPAN. There is administrative support for utilizing individuals through split assignment but that can only work for a few non-technical needs.
- The unresolved merger issue continues to impact on activities, planning and morale. The amount of communication on this issue has been increased with meetings and accurate data provided to key provincial administrators. Fortunately, the decision is being discussed at higher levels as evidenced by the requests for information. As repeatedly stated, my opinion is that the research system has the most to gain from remaining integrated with the University.
- 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**

February marks the end of my assignment as Continuing Education Specialist for TIPAN. Activities during the quarter included farmer field days, women's training programs, a training workshop for Agricultural Extension Staff, planning for a Management Skills Workshop, and preparation of my End-of-Tour report. Of particular significance was the appointment of Dr. Mohammad Asrar as overseer of Outreach, Continuing Education and Communication Services Divisions by the Vice Chancellor and appointment of Dr. Habib-ur-Rehman as Director of Outreach by the Secretary of Agriculture.

### **Leadership Changes (C.1.1)**

On February 10, 1994, the Vice Chancellor appointed Baz Mohammad as Director of Outreach in addition to his duties as Regional Program Leader. This action was undoubtedly prompted by a

February 3 letter from USAID to the Vice Chancellor requesting him to fill the post of Outreach Director which had been vacant since October 1993, and with only a part-time Director from February through September, 1993. The letter from USAID pointed out that funds for outreach would be withdrawn unless an Outreach Director was appointed.

The appointment of Baz Mohammad as Outreach Director is certainly one that is meritorious. He has worked effectively and unselfishly since 1987 to bring about the implementation of outreach functions within the AU and research systems. He has demonstrated leadership skills in arranging a number of very successful farmer field days at research stations in cooperation with Agricultural Extension. He enjoys and has earned the respect of faculty, researcher and Extension leaders in the NWFP.

Unfortunately, it appears the Vice Chancellor has no control in the selection and appointment of a full-time Director of Outreach. The VC's office order of Feb. 10 was superseded on Feb. 21 with the announcement by the Governor of NWFP that Habib-ur-Rehman, Director of Soil and Plant Nutrition at Tarnab ARI, would be the new Director of Outreach. While Habib-ur-Rehman is a very competent individual, one has to wonder whether the Vice Chancellor or Secretary of Agriculture has administrative control of appointments at AU. Of significance is the fact that the VC was not one of the individuals receiving a copy of appointment order by the Governor. In other words the Outreach Directorate appears to be under the control of the Secretary of Agriculture.

The second important action by the Vice Chancellor was the appointment of Dr. Mohammad Asrar as "overall in-charge of Continuing Education, Outreach and Communication Services." Although this position does not yet have an official title, one suggested by Dr. Linz Brown, Consultant to Continuing Education, was "Executive Director of Continuing Education and Public Service." Dr. Asrar has demonstrated superior leadership skills and initiative at AU and will bring sustainability to the three divisions and much needed coordination of their activities.

A further staff change was the transfer of Mohammad Iqbal, former Deputy Registrar of AU, to the Continuing Education Division.

#### **Information Transfer (C.1.4)**

##### **Seral Naurang Field Day**

About 200 farmers attended a Farmer Field Day at the Serai Naurang, Research Station February 8. Dr. Nazir Hussain, Station Director, gave leadership to this activity with guidance and support from Baz Mohammad, Outreach Director and Mumtaz Ahmad Khan, Assistant Director of Extension, Bannu. (Note; the latter attended the INTERPAKS workshop at the University of Illinois in September, 1993). The Chief Guests at the Field Day were the Commissioner of the Bannu Division and Deputy Commissioner of Lakki District. Both gave indications of being impressed with the work of the Agricultural Researchers. They were also given a briefing about the TIPAN Project by Dr. Nazir Hussain, Mohammad Amin and Dr. Mohammad Jamal. I also had the opportunity to share some important points about the new mission of NWFP-AU.

This was the second field day at Serai Naurang in the last 10 months. The Station Director and staff did do a nice job of telling about their research in eight tour stops. The activity was well planned and it was obviously appreciated by the farmers and chief guests.

##### **Farmer Field Days at Lakki and Karak**

Baz Mohammad, in Cooperation with Agricultural Extension Staff, organized farmer field days at Lakki on January 12 and Karak on January 13. Over 100 farmers attended each field day. Presentations were given by Gul Nawaz Marwat, Research Entomologist at Tarnab A.R.I. and Shad Khan, Weed Scientist, AU. Of particular significance regarding these two field days is the leadership of Mumtaz Ahmad Khan, EADA Bannu, who was responsible for making local arrangements.

### **Entomology Training Short Course For Extension Staff**

Gul Nawaz Marwat, Senior Research Entomologist at Tarnab ARI, conducted an excellent in-service training short course for 35 Agricultural Extension Officers and Field Assistants at Mardan on January 14-17. The short course organized by Mr. Marwat is a good example of cooperation that can and does occur between Agricultural Extension, researchers and NWFP-AU faculty. Marwat involved Drs. Naeem and Inayatullah from the AU Department of Entomology as well as entomologists from Tarnab ARI, SCRI, Pakistan Forest Institute and Agricultural Extension. I gave a talk on the "Role of an Extension Entomologist (via an interpreter) during the closing session. Mr. Marwat has been performing the role of an Outreach Subject Matter Specialist exactly as envisioned by the TIPAN Design Team. He has given leadership in conducting on-farm demonstrations, on-farm research, farmer field days, preparing termite control recommendations and organizing and conducting training courses for Extension staff. Gul Nawaz Marwat is an excellent role model for all disciplines.

From my perspective probably the greatest deficiency in the NWFP Agricultural Extension System is the lack of qualified Extension Specialists, a view shared by the TIPAN Design Team as far back as 1983.

### **Women's Outreach Program (C.1.5)**

Mrs. Ejaz Begum, Women's Program Leader, has been active this quarter in teaching and arranging training programs for women. About 100 village women, nine female AU students (Horticulture, Nutrition and Livestock Departments, eight Fruit and Vegetable Development Board Staff, two Family Planning Health Supervisors and two Community Leaders participated in a women's program at Jaghra near Tarnab on January 16. The Chief Guest was Mrs. Basit Ali Shah. Mrs. Begum also travelled to the Gadoon-Amazai region and gave 3 programs on human health and poultry production to 115 women in two villages on January 18-19. In addition, Mrs. Begum taught several classes for the Fruit and Vegetable Development Board Women's Project. Mrs. Begum also arranged for three teachers and 26 students from Tarbela College to visit the NWFP-AU campus on February 9. Drs. Asrar and Bashir gave the visitors an overview of AU admission policies and conducted a campus tour for the teachers and students.

### **Continuing Education Short Course (C.1.4)**

Three short courses were coordinated by Dr. Asrar during January 1994. A computer training course was held in D.I. Khan from January 1-7 for researchers. Thirty-Three Extension Field Assistants from Chitral were on campus from Jan 8-14 for horticultural and agronomic training. Dr. Nawab Ali, Department of Horticulture, helped with the implementation of that program. A Seed Technology workshop was attended by 22 participants including 10 from Extension, on July 18-19.

### **Financial Support for Continuing Education (C.2.1)**

Dr. Asrar, Director of Continuing Education, submitted a PC-1 to the University Grants Commission requesting Rs 2.6 million to conduct 24 Continuing Education short courses at the new AU Learning Research Center during 1994. A detailed budget was prepared for the following courses, most of which are one week in duration with 20-50 participants:

Management Skills	Office Management
Beekeeping (3 courses)	Education Administration
Farming Systems Research	Computers for Beginners
Fruit Fly Management	Library Resources
Agricultural Policy	Statistics
Technical Writing	Communication Skills
Soil Science	GOP Policy
Teaching Skills	Desktop Publishing

Farm Machinery  
Entrepreneurship  
Irrigation Management  
Seed Technology

M-Stat and Word Perfect  
Agricultural Data Analysis  
Mushroom Cultivation  
Integrated Pest Management

### **Management Skills Workshops (C2.3)**

Dr. Asrar has initiated plans to conduct two Management Skills Workshops during April and May, 1994. The week-long workshops will be conducted by PIMS and tailored to meet the needs of researchers and AU faculty. In addition, senior staff from Agricultural Extension, Fruit and Vegetable Development Department Board and Livestock and Dairy Development Department will be invited to participate. Dr. Asrar will coordinate the workshops which will hopefully be held in the new NWFP-AU Learning Resources Center.

### **Reflections**

I have enjoyed the opportunity to work with TIPAN TAT and support staff, outreach staff, AU administrators, AU faculty and agricultural researchers these past two years. I thank all of them for their guidance, cooperation and patience.

The TIPAN concept is very important to agricultural development in the NWFP and Pakistan. I wish the AU faculty and researchers success in undertaking the new mission of "taking the University to the people." Change is inevitable if an organization is to serve the needs of clientele. It is important to recognize when change is needed have the courage to make adjustments (sometimes painful), and the wisdom to make the right decisions. I hope NWFP-AU and Provincial Leaders will find within themselves the commitment and flexibility to accept the TIPAN concept. Otherwise, agricultural development in NWFP will suffer.

### **CROP SCIENCE - FARREL J. OLSEN**

I served as acting team leader while Dr. Oval Myers, Jr. attended an international soybean conference in Thailand. My regular tour of duty ended in mid-February and I am remaining at the NWFP Agricultural University, Peshawar for a few additional months taking on some additional duties. I will be working with two new counterparts Mr. Ali Liaqat, Planning and Development and Mr. Mohammad Ayaz, Director of Communications.

### **Instruction (TIPAN Area B)**

Assistance was given in the preparation of the "Thesis Manual for NWFP Agricultural University. Dr. Everett Edington, TIPAN Teaching Specialist, was involved in the early development of this manual. However, it was not completed and published. I have reviewed it, made some changes and additions and it was published this quarter.

Information in the thesis manual will serve as a guide for both masters and doctoral candidates in the preparation of copies of their theses. The thesis manual was distributed to the library, Deans, Chairmen, Research Station Directors and others as appropriate by the Director of Teaching.

### **Organize a Re-entry Program for P\T's (A-I a.2)**

The Re-Entry Committee is preparing a booklet giving the names and areas of specialization of the scientists within the NWFP Agricultural University System.

### **Research Program (TIPAN AREA B)**

Wheat is the most important food crop in Pakistan and every effort should be made to increase wheat production. A Wheat Travelling Seminar in the North West Frontier Province was organized through TIPAN to assess the wheat situation in the province. It will be conducted in early April. Mr. Ali Haider, Wheat Botanist, CCRI, Pirsabak and Dr. Paigham Shah are assisting in the planning of the travelling seminar. Participants will be invited from on and off campus in plant breeding, agronomy, entomology, plant pathology and soils. The Wheat Travelling Seminar will provide an excellent opportunity for exchange of ideas among scientists working on wheat and for identifying problems of the wheat growers in NWFP. The participants will evaluate the research work on wheat and suggest improvements.

### **Support Technical Review Committee (B-2.2)**

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

### **Initiate a Special Project Grants Program for Returned Participant Trainees (B-2.3)**

Assistance was given to returning long-term trainees in initiating viable research programs shortly after their return to the NWFP Agricultural University System. "Seed Money" was awarded after peer review for research projects involving the collaborative work of scientists both on and off campus. Four Special Research Projects were awarded during this quarter.

The projects approved for funding during this quarter are as follows:

1. Estimation of Various Parameters in Competition Design.
2. Studies on the Control of Root Rot Disease in Chilies, Capsicum annum L.
3. Stability of Vitamin A in Infant Formula and Fortified Milk.
4. Cytomorphic Studies of the Genus Brassica.

### **Continue Development of Weather Stations and Dissemination of Data (B-3.1).**

Assistance was given in the preparation, publication and dissemination of the Meteorological Observations at NWFP Agricultural University Research Stations, Pakistan Volume III. NO. MET-09/93 July-September, 1993 and Volume IV. NO. MET-12/93 October-December 1993. This completes the gathering and dissemination of the weather data for the last two years (1992 and 1993). Data are presently being summarized and reported from 12 institutes/stations in the NWFP.

### **Assess the Status of Equipment, Spare Part Requirements, and New Equipment. (Needs B-3.5).**

Four rice threshers at D.I. Khan Research Station were assembled and made operative through the efforts of Dr. Robert Wolff, TIPAN consultant, Mr. Mohammad Amin, and Mr. Zia from the Department of Agricultural Mechanization.

Mr. Mohammad Amin also assisted CCRI with their wheat thresher which was not threshing wheat properly. The adjustments on the thresher have been completed and the thresher has been returned to CCRI.

Some field equipment has been received during this quarter with considerably more field and laboratory equipment for the AU System in the pipeline. A rice thresher was received for Mr. Dil Rosh Khan

of the Mingora Research Station. This piece of equipment has been on order for some time and will be fully utilized.

A sprinkler irrigation system has been designed and installed at the Karak Research Station under the direction of Dr. Mohammad Jamal from the Water Management Department. Dr. Jamal spent about one week of his time at the Karak Research Station directing the installation of the irrigation system. The system consists of a water storage tank with a capacity of almost 50,000 liters. The storage tank is underground and adjacent to the research fields. The sprinkler irrigation system is capable of irrigating about 12 acres. It has 40 sprinklers each of which delivers about 13 liters/minute of water. As a result of the installation of the sprinkler irrigation system, the research activities on chickpea on the Karak Research Station were salvaged for this growing season. Additionally, a farmers field day is planned for April.

#### **Consider Development of AU Seed Production Unit (B 3.6).**

A two day Seed Technology Workshop was conducted for individuals involved in seed increase and production from Agricultural Extension, Agricultural Development Authority, National Seed Registration Department, and seed certification agencies, PATA and farmers. The first days program was held on the AU campus with Dean, Prof. Jehangir Khan Khattak welcoming the 25 participants from the various agencies. Speakers on the first days program included Prof. Fazal Hayat Taj, Chairman, Agronomy Department, Dr. S. Ifran Ahmad, Director General of the Federal Seed Certification Department, Ali Haider, Wheat Botanist, C.C.R.I., Dr. Bashir Ahmad, Agronomy Department, and Mr. Gulzar M. Yousnfzai, Agricultural Development Authority. A field trip to the Malakandher Farm was made in the afternoon to observe the seed multiplication program and the seed storage facilities. Emphasis the first day was given to the standards of seed certification and different stages of multiplication, standards of seed production and variety evolution, seed germination, seed multiplication, production, grading/cleaning, drying, certification, storage and marketing.

The second day of the workshop was held at the Cereal Crops Research Institute. An introduction to breeder nucleus seed and pre-basic seed production was given by Ali Haider, Wheat Botanist. A tour of the wheat breeding nursery was also conducted by the Wheat Botanist. Dr. Bashir Ahmad Bashir showed and discussed the seed cleaning equipment and the new seed storage facilities provided through TIPAN.

The proceedings of the Seed Technology Workshop will be published and distributed.

#### **Develop a NWFP Research Plan B4**

As mandated by USAID, a Master Research Plan Northwest Frontier Province 1993 to 2013 has been completed and published after ten months of work. There were many Pakistanis involved in the development of this plan. Additionally, several TIPAN consultants also worked diligently to bring this plan to fruition. It will serve as a guide for researchers and as a management tool for administrators. Additionally, the plan will help all those interested in agriculture in the NWFP and Pakistan to determine priorities for their various research activities.

#### **Development and Utilization of the Communications/Publication Division. C3**

With the assistance of Mr. Mohammad Ayaz, Director of Communications, a brochure and video are being prepared to market the NWFP Agricultural University System. There will be about 40 different topics covered in the brochure featuring appropriate photographs depicting some of the important activities in teaching, research, and outreach.

### **Administrative Support System D1**

Support has been given to the Sustainability Committee. I am now an official member of this committee. The Sustainability Committee met several times with Dr. James Tweedy, Vice President for Administration, Southern Illinois University at Carbondale. Dr. Tweedy also met with the Foundation Committee, Alumni Association Committee and the Grants, Contracts and Constultancy Committee. Dr. Tweedy has prepared documents for establishing a foundation, and alumni association. He also developed guidelines for grants, contracts and consultancies.

### **Support Departments/Sections b.3**

Assistance was given to the Department of Entomology with the preparation and publication of their 1993 Annual Report.

Help *was* also extended to the Department of Plant Breeding and Genetics in the preparation of a their departmental brochure.

Assistance was provided to the Department of Agronomy with the preparation of their publication Agronomy Abstracts Volume 29, 1993 and their Annual Progress Report (1993).

Plans have been developed for the utilization of the new buildings on campus. Plans for an orderly occupation of new space and reassignment of old space have also been made.

### **Plans for Next Quarter-(April-May 1994)**

1. Carry out activities as outlined in the Scope of Work for the Planning and Development Assignment.
2. Assist Re-Entry Committee with their program.
3. Assist with planning and conducting a Wheat Travelling Seminar in NWFP.
4. Prepare End of Tour Report.

## **COMMUNICATIONS - J. CORDELL HATCH**

### **Communications**

- Communications Specialist returns from tour in U.S. where he assisted University of Illinois with commodity procurement.
- Specified scopes of work for new building modifications, additions, and installations. Prepared PIL request and drafted authorization letter.
- Outlined comprehensive communications campaign for marketing NWFP-AU to its various clients.
- Helped plan and design AU marketing brochure and video.
- Wrote copy for Library flyer and brochure section.
- Wrote opening and closing sections of marketing video.

- Met with Radio Pakistan and PTV officials regarding coverage of NWFP-AU and expanding information services to farmers and the public.
- Outlined Computer Graphics and Desktop Publishing courses; conducted at NARC in April under MART Project sponsorship.
- Provided technical assistance to ADB/UNDP Barani Project, resulted in \$250,000 allocation for communications campaign recommended for Saving Pakistan's Soil and Water.
- Worked with Sustainable Development Network in Islamabad to facilitate electronic mail network being established in NWFP with AU as the Provincial node.
- Prepared source/origin waiver request for procurement of photocopiers, voltage regulators, printing equipment and audio-visual supplies. Prepared waiver draft.
- Prepared newspaper advertisements and tender documents for photocopier and farm equipment procurements. Helped specify computers and peripherals and evaluate bids.
- Continued to facilitate equipment procurement thru U-I.
- Served as acting team leader in Dr. Myers' absence.

### Communications/Facilities/Equipment

#### **Develop Audio-Visual Center (A.1.b)**

The Communications Specialist returned in January after spending time in the U.S. helping the University of Illinois with procurement of equipment for NWFP-AU. Upon his return he found the Communications Production and Computer Center, Library, Communications Teaching, and Outreach buildings essentially complete but not yet turned over to the University. Problems cited were lack of gas and sewer services.

Work on the Auditorium was continuing, but somewhat slowly. It is finished now except for a few minor things, such as light controls. However, it has not been turned over to the University.

To say that the above are finished and turned over to the University does not mean that the space is complete and ready to be used for the purposes for which it was constructed. Quite the contrary! In practically every laboratory, classroom, and studio further work is required. This is mainly in the form of additions, modifications, and installations.

Detailed scopes of work were prepared for the Auditorium, Video Production Studio, Video Control Room, Video Editing Suite, Audio Recording Studio, Audio Control Room, Audio-Visual Screening Room, Computer Training Lab, Language Lab, and Outreach Lecture Hall.

Tender documents were prepared for these works, then advertised in national newspapers. Responsive bids were received and evaluated. Contracts will be let soon. The additions and modifications must be completed before the equipment can be installed. Most of this work actually should have been included in the SOM and ENCORP contracts and performed by them.

Examples of deficiencies: 1. No public address system, window coverings, or carpet in auditorium; 2. No electricity or pipe grid for studio lighting; 3. No acoustical treatment on ceilings or walls in Video Studio or Screening Room; 4. Inadequate power for equipment in Computer Training Lab; etc. USAID will provide funds for correcting these deficiencies through a PIL to Director of Works.

A considerable amount of work is to be done during the remaining months of the TIPAN contract. All labor and materials are locally available, and work should begin in late April. This will help, but to get all the work done and the new equipment installed, tested, and operating as integral systems will be a major achievement. The Communications Specialist will supervise most of the work; his contract has been extended to 15 July 1994. The lack of technical staff in Communications Services and the University, however, is a major drawback. It would be highly desirable for staff engineers, producers, and operators to be involved in the installation and testing of the equipment and systems.

### **Equipment Procurement**

Stateside procurement of equipment is all but finished except for possible emergency items which can be hand carried or air expressed to Peshawar. Most items have been received, and others are on the way. Some critical equipment, however, is yet to be shipped from the U.S. and Japan. Final items available in Pakistan are now being purchased through open tenders.

Audio-visual equipment is joined by other commodity procurement. Computers, printers, peripherals and updated software have been ordered for the University and Research System. Included in the order are 37 computers, 19 printers, voltage regulators, and software for the New Computer Training Laboratory. This could ultimately become the extensively used and most valuable educational facility on campus.

Additional equipment for the Library has been ordered, such as faster, more powerful computers (66Mhz/486DX/200MB), advanced CD-ROM decks with computer interface, and updates of software and databases.

Printing equipment adequate to meet University needs has been ordered along with supplies for several months. In addition, the older printing equipment purchased by TIPAN has been reconditioned and put into good working order. Also, the operator has been trained by factory personnel.

Photocopiers along with voltage regulators and other equipment available locally are being purchased. The bids are to be opened 23 April 1994.

Tractors, threshers, drills, and other farm equipment also have been advertised and will be purchased in Pakistan for the University and Research System.

### **Communications Productions and Teaching Staffs**

At the conclusion of TIPAN the University will have beautiful new buildings equipped with state-of-the-art technology, the envy of any college or university in Pakistan or elsewhere. Almost 14,000 square feet of new space is provided for Communication Production and Teaching. New equipment cost approaches \$1,000,000. But all the space and equipment in the world will be of little value unless there are persons trained and eager to use it.

The TIPAN PC-1 and project paper, signed by U.S. and Pakistani officials, specified a communications staff of 18 persons. These were to be hired and trained as development staff, then regularized into the University's recurring budget by the end of TIPAN. Unfortunately, this has not happened. Practically no staff has been hired and none have been regularized. And doubly unfortunate, communications posts were deleted from the SNE submitted recently for funding.

Authorities have ignored these TIPAN obligations for almost eight years. Many faculty and staff were hired, but practically none of the development posts were filled. With the country's financial situation as it is now and with education in low priority, the staffing situation becomes more difficult. Alternatives have been discussed, including staff transfers, split assignments, joint appointments, etc. These are more difficult and possibly not as satisfactory as hiring new and qualified staff for the specific communications posts. Nevertheless, almost any arrangement would be better than what exist now.

The University simply does not have the trained manpower to adequately use the TIPAN-provided facilities and equipment. The present new administration has shown concern and interest. They are urged to deal with the communications staffing problem while TIPAN advisors are available and eager to help.

The relationships between Communications and other units specified in the Learning Resources Center (Library and Computer Training Lab) along with Continuing Education and Outreach need also to be examined and clarified. Presently there is no clear chain of command. Attention should be given to the best arrangement for planning and executing--getting things done.

### **Strategy for Marketing University**

A multi-faceted, multi-media campaign for promoting or marketing the University and Research System was offered. It included the brochure and video Dr. Olsen is working on, plus individual flyers, exhibits, displays, posters, radio and television broadcasts, slide sets, etc. Progress is commensurate with the existing staff.

Following a seminar conducted by the Communications Specialist, proposing a multi-media approach to the promoting soil and water conservation in Pakistan, the Asian Development Bank/UNDP Barani Project allocated \$250,000 for the campaign.

### **Training and Staff Development**

Two courses of two weeks each were proposed by the Communications Specialist to help users of the MART-supplied equipment improve desktop publishing and computer graphics skills. Users from NWFP attended and gave it high marks.

### **Networking for Better Communications, Better Management**

The TIPAN Office supports a facsimile service with excellent results. Two electronic mail modems have been acquired, with one to go in the Library and one in the TIPAN Office. Plans are also being made to have the University serve as the E-Mail node for the province. Modems are being purchased for the Research System so that they can have better communications and sharing of computer files. The modems will interface with the new computers to be distributed on campus to the the research stations.

## **PROJECT BACKSTOPPING**

### **TIPAN Project Work Group**

No formal meeting of the PWG was held during the quarter.

### **Coordination Activities**

Activities set forth in the approved demobilization plan were continued, with focus on area of commodity procurement. The return of Dr. Cordell Hatch to Peshawar provided impetus to the process of equipping the units of the Learning Resources Center. Needed modification in building design were identified by Dr. Hatch to accommodate equipment ordered. USAID responded by approving funds for most of the modifications.

Professor Donald Kuhlman completed his resident assignment as Outreach and Continuing Education Specialist and departed post. Professor Farrel Olsen completed his assignment as Crop Science Specialist in February, but was extended to assist the AU in planning and promotional activities. He will depart post in May.

Planning, preparing and fielding of TDY personnel continued. The TDY plan was modified significantly, reducing the proposed number of assisted areas by about 10. Four TDY's were initiated or completed during the period (Job Descriptions, Administrative Organization/Functions, Sustainability of Institutions, Auxiliary Services). Preparations for four to five additional TDY's to be assigned in the final quarter of the project got underway. Drafting began of the final summary report of progress. The report will present a "big picture" review of the ten-plus year activity, and will be supplemented by several appendices providing staffing and fiscal and other technical information. The text of the summary report will be available for USAID in July, but the final report, with fiscal and other information will not be ready until 60-90 days after departure of the field team.

### **Sustainability Activities**

TDY activities by Dr. Jim Tweedy centered on the development of policy documents addressing three issues promoting institutional sustainability. They included:

- A policy statement for the establishment of a foundation to support programs of the AU;
- A policy statement for the establishment of an organization within the AU administrative structure to administer contracts, grants, and gifts that may be generated by the AU; and
- A set of bylaws for the establishment of an AU alumni association.

Broader issues of institutional sustainability were addressed by Orville Bentley during his TDY. Participating in a major workshop on agricultural extension, organized by the NWFP Department of Agriculture, Dr. Bentley called upon his extensive experience in institutional change to focus on two interlocked prime questions--what is to be done and who is to do it. Since there is general agreement, with respect to extension, that the system as now being practiced is failing to achieve its mandate. Change is indicated and the opportunity is at hand to examine new models of technology transfer and institutional cooperation. AU, with its Outreach Directorate, well trained staff, and modern facilities is a logical partner in whatever program evolves. Dr. Bentley also had opportunity to call upon senior level provincial and federal officers to share with them his views on cooperation and collaboration to enhance the process of agricultural development.

The draft Memorandum of Understanding linking AU, SIUC, and UIUC was approved by the U.S. institutions and will be forwarded to AU for execution and implementation. TDY's in the final quarter will address implementation and funding issues. Liaison officers for each of the participating institutions will be named and a draft implementation plan will be developed for the first year.

### **Building Turnover Process**

Electrical and gas tests were run preparatory to handing over the new buildings to AU. Problems were encountered in each set of tests, but steps are underway to address them. The TDY of Mr. Harry Wirth, a follow-up visit to his Spring 1993 assignment, produced a request for additional assistance in building automation, and USAID have agreed to adding a final TDY in this area.

Because of the uncertain political situation existing in NWFP, sentiment is building for a two-phased building inauguration process. It is likely that a handover ceremony will be held later this Spring, in which USG representatives will turn the buildings over to the AU. This will be followed by a formal inauguration to be scheduled at the convenience of the Pakistani authorities.

## **PARTICIPANT TRAINING**

### **First Quarter 1994 Principal Participant Training Activities**

- A. During this quarter a complete set of Academic Enrollment and Term Reports was sent to the Project Officer, Team Leader and Vice Chancellor to give them details on work completed by all TIPAN-sponsored, advanced-degree participants during the 1993 fall semester and their planned workloads for the 1994 winter/spring term.
- B. During this quarter, specialized short-term training programs were arranged at SIUC for three NWFPAU faculty/staff. They were Sardar Alam and Sajid Ali from the Department of Works and Mohammad Idris from the English Department.
- C. Information was collected and organized in order to meet the requirements of USAID, the Internal Revenue Service, and state tax offices for filing of participants' 1993 federal and state tax returns. Dee Dee Hines and Diana Glasgow attended the OIT/ USAID tax workshop in Washington to gain a better understanding of OIT's new tax processing procedures and changes in the IRS regulations which will affect all TIPAN participants beginning with the 1994 tax year.
- D. Ten TIPAN-sponsored participants completed advanced degrees during this quarter. Details on that group of 10 are as follows:

<b>NAME</b>	<b>UNIVERSITY</b>	<b>FIELD</b>	<b>DEGREE</b>
Efkar Ahmad	Univ. of Illinois	Soil Science	M.S.
Anwar F. Chishti	Univ. of Illinois	Agricultural Economics	Ph.D.
Arshad Humayun	Univ. of Illinois	Human Nutrition	M.S.
Shaukat Hussain	Oregon State	Plant Pathology	M.S.
Atiq Ahmad Khan	Cornell	Vegetable Breeding	M.S.
Ayaz Mohammad	New Mexico State	Vegetable Breeding	M.S.
Abdur Raqib	Univ. of Missouri	Entomology	M.S.
Rafiullah Sahibzada	Univ. of Idaho	Rapeseed Breeding	Ph.D.
Gul Shad	Washington State	Veterinary Science	M.S.
Zakiullah	Southern Illinois	Computer Science	Ph.D.

As we enter the second quarter of 1994, the following totals are reported:

- 18 participants are enrolled for advanced-degree study.
- 112 participants have completed advanced degrees (43 Ph.D. and 69 M.S.) in U.S. universities through TIPAN support.
- 73 participants have returned to Pakistan from non-degree training in the U.S. and at selected third-country sites.
- 12 participants have been unsuccessful in achieving their degree objectives.

## **COMMODITY REPORT**

During the last quarter, the three final 20 x 20 foot containers of equipment and commodities were shipped by sea to the NWFP Agricultural University. Their estimated dates of arrival in Karachi are:

28 February 1994

30 March 1994

29 May 1994

The remaining equipment and commodities will be sent by air to Peshawar in several small shipments. We have informed the UIUC Purchasing Division that all equipment must be delivered to Carter's Moving and Storage by 1 July 1994. This will ensure that everything can be delivered to Peshwar by the 16 July 1994 deadline that Dr. Oval Myers has suggested.

These final air-shipments will be addressed to Peshawar rather than Islamabad or Karachi. This should enable us to clear the shipments through customs in Peshawar and thereby avoid the overland trip from Islamabad or Karachi.

## **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 December 31, 1993 are shown in Table I. Table II shows line item expenditures reported for in-country support.

TABLE I

PREPARED BY DIANA GLASGOW  
JUNE 14, 1994

TIPAN EXPENDITURE REPORT  
NOVEMBER 1, 1984 THROUGH DECEMBER 31, 1993  
QUARTERLY 1994 AND TOTAL TO MARCH 31, 1994

	11/1/84 THRU 12/31/93	1ST QUARTER 1994	2ND QUARTER 1994	3RD QUARTER 1994	4TH QUARTER 1994	GRAND TOTAL THRU 3/31/94
I. SALARIES	\$4,544,789.85	\$150,822.69	\$0.00	\$0.00	\$0.00	\$4,695,612.54
II. FRINGE BENEFITS	647,553.38	29,829.43	0.00	0.00	0.00	677,382.81
III. INDIRECT COSTS	2,343,363.98	61,584.50	0.00	0.00	0.00	2,404,968.48
IV. TRAVEL & TRANSPORTATION	1,062,445.67	19,569.04	0.00	0.00	0.00	1,082,014.71
V. ALLOWANCES	838,765.14	12,778.07	0.00	0.00	0.00	851,543.21
VI. OTHER DIRECT COSTS	1,120,625.29	63,732.59	0.00	0.00	0.00	1,184,357.88
VII. TRAINING	9,190,161.40	188,916.81	0.00	0.00	0.00	9,377,078.21
VIII. EQUIPMENT ACE	3,139,897.60	0.00	0.00	0.00	0.00	3,139,897.60
IX. EQUIPMENT	183,921.92	4,436.13	0.00	0.00	0.00	188,358.05
X. EQUIPMENT PROJECT	384,044.60	322,077.11	0.00	0.00	0.00	706,121.71
XI. MISC TRAVEL EXP	0.00	0.00	0.00	0.00	0.00	0.00
<b>XII. TOTAL</b>	<b>\$23,455,588.83</b>	<b>\$851,746.37</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$24,307,335.20</b>

	OBLIGATED	EXPENDED	BALANCE AVAILABLE
TA/TRNG	21,638,960.00	20,353,200.68	1,285,759.34
TECHNICAL ASSISTANCE	11,170,445.00	10,978,122.45	194,322.55
TRAINING	10,468,515.00	9,377,078.21	1,091,436.79
ACE	3,200,000.00	3,139,897.60	60,102.40
EQUIPMENT PROJECT	2,000,000.00	706,121.71	1,293,878.29
SUBCONTRACT	175,565.00	108,115.23	67,449.77
<b>SUBTOTAL</b>	<b>27,014,525.00</b>	<b>24,307,335.20</b>	<b>2,707,189.80</b>
LOCAL FUNDS	0.00	1,825,300.00	(1,825,300.00)
<b>GRAND TOTAL</b>	<b>27,014,525.00</b>	<b>26,132,635.20</b>	<b>881,889.80</b>

TABLE II

	11/1/84 thru 12/31/93	1/94	2/94	3/94	TOTAL	11/1/84 thru THRU 3/31/94
1-5-40382 ACE						
VIII. LIBRARY SUPPLIES 2120	107,212.75	0.00	0.00	0.00	0.00	107,212.75
VIII. SHIPMENT 4540	328,305.25	0.00	0.00	0.00	0.00	328,305.25
VIII. EQUIPMENT & SUPPLIES	2,704,379.60	0.00	0.00	0.00	0.00	2,704,379.60
<b>XI. TOTAL</b>	<b>3,139,897.60</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3,139,897.60</b>

12

**APPENDIX A - WORK PLAN**  
**APRIL - JUNE 1994**

**A. Improve Education Program**

Area of Involvement	Activities	Who	Outputs
A1 Instruction a) Faculty Expertise	1. Participant Training Program	- TL/TAT - AU - Selection Committee	- Initiate 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	- Install equipment. - 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.

Area of Involvement	Activities	Who	Outputs
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. Establish Criteria and Standards for Ph.D. Programs	- Director Teaching - Deputy Director Teaching - VC - Deans - TAT - Syndicate/AUTA	- AU working group to draft policy and standards. - Implement TDY report.
A4 Curriculum Development	1. Review and update Departmental Curricula	- Deans - Director Teaching - Dept. Heads	- Departments and faculties recommend changes to Vice Chancellor.
a) Course Offerings			
b) Department Programs	1. Develop department brochures	- Communications Coordinator/AU - Communications Specialist/TAT - Deans - Dept. Heads - Director of Teaching	- Department brochures.
	2. Review and update Degree Requirements and Core Courses	- Director Teaching - Deans	- Departments and faculties recommend changes to Vice Chancellor.
	3. Establish Internship Program	- Director Teaching - Deans	- Internship Committee discusses internship options.
c) Course Content	1. Upgrade Course Syllabi Regularly	- Director Teaching - TAT - Department Chairmen - Deans - Professors	- Revised syllabi.
	2. Produce Pakistani Agricultural Textbooks	- TL/TAT - Textbook Project Coordinator - Communications Specialist - Communications Coordinator	- Complete remaining chapters. - Editor returns edited chapters for correction. - Initiate graphics for textbook chapters. - Additional textbooks to printer.

## B. Research Program

Area of Involvement	Activities	Who	Outputs
B1 Develop Research Administration	- Strengthen Research Directorate	- Consultants - Director Research - TL/TAT - Director Finance	- 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	- Director Research - TAT - Faculty/Staff	- PC-Is. - Project proposals. - Develop list and information on funding resources.
	2. Support Project Technical Review Committee	- Crop Specialist/TAT - Director Research - TRC	- Utilize committee for Special Grants Projects.
	3. Special Grants Projects for long-term degree returnees	- Crop Specialist/TAT - Director Research - Vice Chancellor/TL - TRC	- Monitor research projects.
	4. Research activities within the faculties conducted under reviewed and approved projects	- Crop Specialist/TAT - Deans - Chairmen	- Active approved research project file for each department.
B3 Improve Research Capability	1. Participant Training Program a) Long-term b) Short-term	- TL/TAT - AU Selection Committee	- Return of completed degree participants. - Initiate remaining short-term training.
	2. Maintenance of weather stations at Agricultural Research Stations in NWFP and continue distribution of monthly data.	- Crop Specialist/TAT - Ag. Mechanization Officer - Director Research - Station Directors - Ag. Mechanization and Water Management Dept.	- Maintain weather stations equipment. - Distribution of monthly weather data. - Receive/install equipment/spares/
	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 LDDD and AHITI	- Outreach - AH Faculty - VRI - LDDD	- Demonstrations and research projects. - Training of field staff.

Area of Involvement	Activities	Who	Outputs
	b) Support individual research, teaching and outreach programs and research station personnel	<ul style="list-style-type: none"> <li>- TAT</li> <li>- Outreach</li> <li>- Others</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluation of completed research.</li> <li>- New proposals prepared.</li> </ul>
	4. Assess status of equipment, spare part requirements and place new equipment orders	<ul style="list-style-type: none"> <li>- TL/TAT</li> <li>- Crop Science Specialist/TAT</li> <li>- Station Directors</li> <li>- Dept. Chairmen</li> <li>- NARC Laboratory Equipment Repair Unit</li> </ul>	<ul style="list-style-type: none"> <li>- Computerized equipment lists.</li> <li>- Condition status of equipment and repair needs.</li> <li>- Place orders for new equipment.</li> <li>- Implement TDY report.</li> </ul>
	5. Development of AU Seed Production Unit	<ul style="list-style-type: none"> <li>- Crop Science Specialist/TAT</li> <li>- Deans</li> <li>- Station Directors</li> <li>- Supdt. AU Farm</li> <li>- AU Seed Technologists</li> </ul>	<ul style="list-style-type: none"> <li>- Seed produced and marketed.</li> <li>- Seed technology training conducted.</li> </ul>
	6. Train researchers to use farm economics in design/interpretation of agricultural research	<ul style="list-style-type: none"> <li>- Rural Social Sciences Staff</li> <li>- Cont. Education Staff</li> <li>- TDY</li> </ul>	<ul style="list-style-type: none"> <li>- Reports with examples of economic analysis.</li> <li>- Research proposals developed that include economic analysis.</li> </ul>
	7. Improved linkages between AU research workers and international centers	<ul style="list-style-type: none"> <li>- TAT</li> <li>- Station Directors</li> <li>- Deans</li> <li>- Chairman</li> <li>- Librarian</li> </ul>	<ul style="list-style-type: none"> <li>- Expand germplasm and professional exchanges.</li> <li>- Participation in international meetings.</li> </ul>
B4 Research Plan	1. Implement Provincial Research Master Plan	<ul style="list-style-type: none"> <li>- Director Research</li> <li>- Station Directors</li> <li>- Deans</li> <li>- Chairman</li> </ul>	<ul style="list-style-type: none"> <li>- Implementation,</li> <li>- Plan distributed.</li> </ul>

11.

**C. Develop Outreach Program**

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

2

Areas of Involvement	Activities	Who	Outputs
C2 Continuing Education Division	1. Institutionalize Continuing Education Division	- AU administration - TAT - Director Continuing Education	- Support personnel for Continuing Education. - Implement TDY report.
	2. Conduct In-Service Training Program	1st Level - Reg. Prog. Leaders - Director Outreach - Director Cont. Education  2nd Level - AU Faculty/Staff	- Plan for training workshops. - Workshops conducted.
	3. Organize Short-Term Training Programs	- Station Directors - Department Chairman - Selection Committee - TAT	- Plan for short-term training needs.
	4. Sponsor conferences, seminars and workshops	- Director Cont. Education - Director Outreach - Organizing faculty and staff	- Workshops organized for external agencies.
C3 Development and utilization of the Communications/ Publications Division	1. Develop Communications Division	- Vice Chancellor - TL/TAT - Communications Coordinator - Communications Specialist/TAT	- Develop plan of split-assignments to support the division.
	2. Development and utilization of Multi-Media Capability	- Communications Coordinator - Communications Specialist/TAT - Directors Outreach/ Research/Teaching/Cont. Education - Information Officer	- 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	- VC - TLV - AU Administration - AU Computer Committee	- Develop plan and implement Mobile Repair Unit. - Computers repaired on timely basis.
C5 Link AU & Merged Research Capability with NWFP Ag. Ext. System	1. Incorporation of farm economics in field trials and extension work	- Director Outreach - AU Economists - Station Staff	- Initiate manual on NWFP Farm Management.
	2. Develop AU methodology for diagnosing problems, potentials and agriculture research/extension priorities in key NWFP locations	- IDS Staff - Ag. Econ Staff - Outreach - Research Stations - TDY	- Initiate additional research in D.I. Khan. - Develop and 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. - Implementation of business plan. - Implementation of workshop report.
b) Support Departments/ Stations	1. Strengthen Department/Station Planning	- Deans - Chairman - Station Directors - TAT - TDY	- Department and Station short and long-term planning schedules.
	2. Strengthen Operations and Maintenance	- Director Works/Staff - TAT - ENCORP - TDY	- Prioritize needs and initiate short-term training to maintain new buildings and services. - Implement TDY report.
	3. Establish university vehicle pool	- VC - Director Finance - TL/TAT	- Develop an updated vehicle use policy.
	4. Develop plans for utilization of the new and existing buildings on campus	- VC - Space Committee - Deans/Chairmen - Director Works	- Plans for orderly occupation and use of new space and reassignment of old space.
	5. 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 implemented. - AU staff training continues.
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	- Develop staff training plan. - Receive/install equipment for new facilities.

Areas of Involvement	Activities	Who	Outputs
	3. Enhance computer literacy and utilization	<ul style="list-style-type: none"> <li>- Director Cont. Education</li> <li>- Chairman, Maths/Statistics/Physics and Computer Science</li> <li>- Computer Laboratory Personnel</li> <li>- AU Computer Committee</li> </ul>	<ul style="list-style-type: none"> <li>- Provide service and training to users on campus and research stations.</li> <li>- Computer technician on permanent status.</li> </ul>
D4 Personnel System	1 Develop an Annual Review and Reporting System	<ul style="list-style-type: none"> <li>- VC</li> <li>- Deans</li> <li>- Director Research Chairmen</li> <li>- Station Directors</li> <li>- TAT</li> </ul>	<ul style="list-style-type: none"> <li>- Revision of ACR.</li> <li>- Annual progress and planning reports from units.</li> <li>- Implement TDY report.</li> </ul>
	2. Develop a uniform personnel code for merged system	<ul style="list-style-type: none"> <li>- VC</li> <li>- TL/TAT</li> <li>- Director Research Registrar/Deputy Registrar</li> <li>- AU staff</li> </ul>	<ul style="list-style-type: none"> <li>- Strategy for implementation of a Unified Personnel System.</li> <li>- Formation of Grievances Committee.</li> </ul>

11

## 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. 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
15. Continuing Education Specialist	Donald E. Kuhlman	01/14/92-03/31/94

## 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	Carl 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 01/20/93-02/20/93
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 AU Foundation Plan	Rodney J. Fink		09/30/89-10/03/89 02/01/92-07/31/92 03/01/93-03/31/93
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 10/20/93-05/02/93 01/28/94-07/15/94 07/20/93-08/30/93
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
49. Role of NWFP Agricultural University in Plant Protection Outreach Program	Kevin Steffey and H. Walker Kirby	10/06/93-10/28/93
50. Women's Outreach Program	Margorie R. Hamann	10/05/93-11/12/93
51. Research Station Management	Clarence J. Kaiser	11/17/93-12/22/93
52. Program Planning and Developing Job Descriptions for Split Assignments	Robert L. Wolff	12/28/93-01/28/94
53. Administrative Organization/functions	James A. Tweedy	02/11/94-02/28/94
54. Sustainability of Institutions	Orville Bentley	03/16/94-03/30/94

#### **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 06/30/93-07/21/93
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
15. Administrative Visit	Oval Myers	12/07/93-12/28/93

## 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. Nicholaides - 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 & Agrciultural 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 Oelsigle - 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

- \*64. Walker Kirby & Kevin Steffey - Role of NWFP Agricultural University in Plant Protection Outreach Programming
- \*65. Margorie Hamann - Women's Outreach Program
- \*66. James A. Tweedy - Administrative Policies
- 67. Clarence J. Kaiser - Research Station Management
- 68. Orville G. Bentley - Outreach Research and Education Linkages
- 69. Robert Wolff - Program Planning and Developing Job Descriptions for Split Assignments

#### **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
- 14. T. A. McCowen - 04 October - 31 October, 1992
- 15. J. J. Nicholaides III - 02 December - 12 December, 1992
- 16. O. G. Bentley - 02 December - 12 December, 1992
- 17. T. A. McCowen - 30 June - 21 July, 1993
- \*18. Oval Myers, Jr. - 07 December - 28 December 1993

#### **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
- 12. Donald E. Kuhlman - Continuing Education Specialist

\*report filed during this reporting quarter

- 56 -