
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

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Consultant Report - Jane S. Johnson

Library and Information Specialist

July 1-25, 1989

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the Northwest Frontier Province
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Summary

The information consultant's three-week trip to Peshawar was quite productive. The religious holiday which occurred during the visit did not detract from the usefulness of the work, but rather allowed the consultant the necessary time to sort through the current work patterns and design modifications which greatly reduce duplication and increase the efficiency of the library staff.

New Microcomputers

Two Zenith 386 microcomputers which had been purchased for the library were installed in the library. Installation took a longer period of time than had been anticipated as there were insufficient power outlets in the work area to support the requirements of the machines. The librarian and information consultant worked with the University's Department of Works to design power bars for the equipment so that when relocation is required, additional electrical wiring will be reduced to a minimum. Department of Works personnel were very cooperative in supplying the additional outlets and power bars required for this equipment.

Library Databases

Data records generated by the AU Library staff since December 1989 were merged with the 3,000+ records for NWFP-AU Library books which the information consultant had downloaded from the University of Illinois library system. AU's database now represents approximately 60% of the book titles held in the library and textbook depository.

Since a large portion of the AU collection is represented in the computerized database, it was possible to establish updated procedures for processing books from the order stage through preparation for circulation. It was made clear to library staff when searching for missing pieces of data that standards had not been consistently followed in the operation of the manual systems. Staff have now been trained to observe the newly established standards and procedures with the knowledge that improper implementation results in a useless database. New procedures emphasize the necessity to search current holdings to prevent unnecessary duplication in ordering materials and to bring together multiple copies of titles and books on similar subjects.

Circulation System

During this visit, plans were made to implement a computerized circulation system. The present circulation system provides only information on the materials each individual borrower has checked out. The computerized system will provide borrower information as well as information on the location of individual books. Plans to implement the computerized system, however, had to be postponed until information required for the circulation system has been identified and correctly input into the cataloguing system. In addition, information is needed on registered students, university faculty, and university staff members who have borrowing privileges at the library. It was not clear which administrative office at the university will provide this information on a regular basis to the library. The librarian plans to pursue further the official source for this data.

Administrative Support for Library

In discussions with administrators and faculty at the university, there is continued emphasis on building up cooperative networks to share information resources among the agricultural research institutes working in conjunction with NWFP-AU as well as the other agricultural universities in Pakistan and PARC. This is, indeed, one of the goals for which the librarian and consultant are striving to attain. However, the librarian must be able to sustain the services within the NWFP-AU Library before they may be extended to other institutions. The current awareness service made available to faculty last December to keep them abreast of new developments in their specific disciplines was suspended when the photocopy machines were removed from the library and transferred to the students' jurisdiction during the unrest in the spring. The library must have strong administrative support to both *build* and *maintain* services to complement the teaching and research responsibilities of the university.

New Library Facilities

Mr. Attaullah, Dr. Eddington, and the information consultant spent one morning with the SOM on-site architect, Mr. Howard Landskroner. Plans for the new library and information center were discussed, particularly with respect to the arrangement of electrical and phone outlets in work areas and arrangement of shelving. Discussions were very enlightening to both the librarian and the architect as both now better understand the needs and constraints of the other. The most disturbing change from the original plans was the cancelation of the book lift to save money. With the majority of shelving for books on the first floor and the major reading areas on the ground floor, a heavy burden is placed on library staff to carry masses of books back up the stairs for shelving. It was requested that the reinstatement of the book lift be placed at the top of the priority list for improvements. Mr. Attaullah plans to write a memo to the architect outlining the results of this meeting.

Work with Related Groups

During the trip the information consultant met with other units and committees to discuss their information and computer needs. Discussions were held with the computer committee with respect to the next tranche of computers to be ordered. A meeting was held with Dr. Eddington, the Director of Teaching, Dr. Hafeez, and Mr. Inamul Haq and his associates to discuss the information requirements to implement the new OSIRIS administrative software package purchased for use at NWFP-AU. Assistance was given to Mr. Faridullah Shah, librarian in the Institute for Development Studies, to restore his database on the IDS Library computer. With the very unreliable power supply available in the IDS building, Mr. Faridullah will have a very difficult time building up his computerized system unless an uninterrupted power supply is purchased for use with his equipment.

Cultural Update

The holiday provided a unique opportunity to gain a better understanding of the cultural setting in the North West Frontier. Mr. Attaullah invited the consultant to visit his village in the Swat Valley for a day. Meeting his extended family and talking about similarities and differences in our two cultures made it easier to comprehend some of the constraints to direct transfer of American-based technology and areas in which compromises are required for sustained implementation of new processes and systems.

ITINERARY	July 1	-	Depart Champaign
	July 3	-	Arrive Islamabad PM
	July 4	-	Arrive Peshawar AM
	July 4-22	-	Work at NWFP-AU Library
	July 23	-	Travel to Islamabad, meet with USAID and PARC officials
	July 24	-	Depart Islamabad
	July 25	-	Arrive Champaign

PURPOSE

The terms of reference presented below cover a consultancy of four months spread out over a year's period. This trip focused on items 1 and 3 to build up and maintain databases for improved control and efficiency in dealing with library materials and to reduce unnecessary duplication of materials and work. There were some indirect gains with item 2 as skills learned for maintaining the collection relate directly to those skills required to provide reference services to faculty and students. Capabilities of desktop publishing were introduced (item 4) with the installation of the laser printer. However, there was not sufficient time available with the print media specialist to work in conjunction with the librarian in this area.

1. Improved control over acquisition and ordering of books and other library materials.
2. Improved library reference services, current awareness services and selective dissemination of information.
3. Preventing duplication of efforts in acquisition, cataloguing and other library services.
4. Review capabilities in desktop publishing utilizing expertise of print media specialist to enable the librarian to publish bibliographies and subject area reviews.
5. Provide additional services such as lists of recent acquisitions, preparation of bibliographies and subject area reviews.
6. Establish interlibrary cooperation.
7. Acquaint students with computerized library procedures.
8. Devise courses in library instruction for students and staff.

ACTIVITIES

A. *Installation of New Library Computers*

Two Zenith-386 microcomputers, a Hewlett-Packard LaserJet Series II printer, and an Epson LQ-2500 printer arrived safely in Peshawar. The equipment was moved to the library to be installed. In April, Mr. Attaullah had requested approval for remodeling the technical services

workroom on the ground floor to accommodate this equipment. However, the approval was granted only one week before the consultant's arrival and remodeling had not yet begun. Consequently, we were forced to install the equipment in temporary quarters.

One of the computers was set up in the air-conditioned room on the second floor which currently houses the single computer previously available for library activities. Once the cables were attached, it was discovered that the original computer had to be unplugged in order to test out the new computer as there was only a single electrical outlet available in the room. Since the central processing units and monitors are switchable voltage, they were changed to 220 v. New 220 v power cords were purchased from EGS (Pvt.) Ltd. as was suggested by Zenith, the manufacturer. Mr. Attaullah contacted the electrician in the Department of Works. With the assistance of the electrician, power bars were designed with appropriate receptacles for the various plugs and requested that an additional power outlet be installed in the room. The electricians were very cooperative in making the necessary changes and preparing portable power bars which will accommodate each unit's electrical needs when they are relocated in the remodeled workroom on the ground floor. The two printers are restricted to 110 v power and special power bars were built to wire these into the 110 v outlet available on the voltage stabilizers attached to each unit.

Mr. Attaullah had obtained a 1000 watt uninterruptible power supply (UPS) just before the arrival of the consultant. The unit was not working properly, but once the supplier came out to the library to explain how to work the unit (no instruction book was available for the UPS), it was found to operate very reliably and allowed 10 to 20 minutes to close out files when there was a power outage.

The Hewlett-Packard LaserJet Series II printer was successfully installed. Two reams of paper were brought from the U.S. by the consultant so that it would not be necessary to spend time searching for the correct paper. However, Mr. Attaullah will need to locate a supplier of quarto (8-1/2" x 11") photocopy paper to use in the machine. Alternately, he could order an A4 paper tray for that size photocopy paper. However, modifications will need to be made to the software if A4 paper is used as the defaults are always set for the quarto size.

B. Building Up the Library Databases

During Mr. Attaullah's stay at the University of Illinois from June through August 1988, he and the information consultant designed basic databases for computerizing the NWFP-AU Library activities. In September when Mr. Attaullah returned to Peshawar, he successfully transferred the software and databases to the computer in the library. In December 1988, Mr. Attaullah and the information consultant worked with the other librarians to train them to prepare worksheets for new materials arriving in the library and to enter data into the computer via WordPerfect.

From January to July the NWFP-AU librarians worked with the new titles coming into the library to input 200+ records into the library database. During this same period, the information consultant downloaded cataloguing information from the University of Illinois Library's on-line database for 3000+ older titles which were identified from photocopies of the author cards which had been sent to the project office in Urbana in 1985. During this visit, the information consultant

combined these two sets of records into a single database thus providing records for about 60% of the titles in the library's collection.

In several of the records downloaded from the University of Illinois database there was missing information with respect to the call number or accession number which had been assigned to the title. These records were marked and printed for the librarians to locate the missing information. In many cases the required information was located. However, in other instances, the librarians were neither able to locate the book on a shelf or a card in the author catalogue for the title. Sometimes the only record to the book was found in the accession register. It became evident to all staff trying to obtain correct information for the database that following strict standards is tantamount to building a useful database.

Over the years, orders have been placed for books by the various departments. The library became involved in the process only upon the arrival of the orders. Consequently, there was often duplication of titles purchased as two or more departments were interested in the same title. In addition, multiple copies of the titles were purchased since it is a policy of the library that the first copy of a title remains in the reference collection of non-circulating books. Additional copies were to be shelved in the circulating collection. In searching for missing pieces of information, it was found that it was not uncommon to find two copies of a single title in the reference collection, most likely a result of the same title being on two different orders. It had not been the practice to search new titles to see if the library already owned a copy of that title before assigning a call number to the book, thus resulting in duplication in the reference collection or two copies of the same title under two different call numbers. During this trip, the information consultant worked with the library staff to establish routine procedures to alleviate unnecessary duplication in ordering and shelving in the non-circulating collection and to bring together on the shelf the titles for which duplication is desirable. A set of written procedures for processing books as they arrive was prepared by the consultant. (See Appendix I.)

Dr. Eddington and the Director of Teaching have been coordinating orders for new books with Mr. Attaullah for the last few months. The library staff check the titles on the order and indicate those already in the collection. As much as possible, they indicate the number of copies already in the library. However, until an inventory is taken of library materials, there will continue to be some titles that are overlooked. This new step in the ordering process has greatly reduced unnecessary duplication.

A serials database was created from a subset of the records from the cataloguing database. This database will eventually be used to check in new journal issues arriving in the library. At present, the serials librarian is updating the holdings of each journal title as he completes the inventory of back volumes of titles held in the library. This information will enable the NWFP-AU Library to easily participate in the union list of serials project planned by the library at the National Agricultural Research Centre (NARC).

C. *Computerize Circulation System*

The circulation system at the NWFP-AU library currently provides very limited information. At present the only records kept are lists of titles borrowed by each student or faculty members. It is not possible under this system to know the location of an specific title at a given time. Consequently, if a title is not located on the shelf, it has been assumed that the book was checked out and no further action was taken. In fact, there are several other possibilities such as the book has been lost, misshelved, or is being used within the library that have been ignored under this system. One feature of a well-developed library is that the frustration level of the patrons is reduced when materials sought, but not found, by patrons will be further searched for by the library staff. If the library maintains circulation records by title as well as patron, then the staff will be able to more successfully serve the needs of the university community.

In order to set up such a circulation system, it is necessary to have accurate information with respect to the books in the library and all persons (faculty, staff, and students) who are eligible to borrow materials. The cataloguing database provides the necessary information for books in the library. During the holiday, the consultant took the accessions registers from the library and added accession numbers to the records where multiple copies of the title have been purchased. Mr. Attaullah will continue this process until all titles and copies have been added to the database. This will provide, in theory, a listing of all the books in the library. At some point, however, a physical inventory must be made of the collection as many books have been removed from the collection through loss, damage, and withdrawal. This information needs to be noted in the database. Perhaps the best time to undertake such an enormous task is during the move to the new building.

In addition to information on the collection, the librarian needs information on faculty, staff, and students who are authorized to borrow materials from the library. Mr. Attaullah attempted to locate where these various bits of data were available within the university. He was not successful during the consultant's visit but will continue to search for the source of this information required in a circulation system. The consultant met with Dr. Eddington and Dr. Hafeez to discuss the implementation of the OSIRIS database software for scheduling classes, grade reporting, and other administrative functions. Once this database is implemented, the library could obtain current faculty and student information on a regular basis from this database in machine readable form. The source of current information on university staff, other than faculty and students, eligible for library privileges still remains to be identified.

In order to implement the envisioned computerized circulation system, some attitudes towards library activities will also need to change. At present, the library collection is treated more as a book distribution center rather than a circulating collection. Both faculty and students tend to check out materials and return them only upon leaving the university or at the end of a semester. All circulating books have been treated more as textbooks rather than as research materials to support class assignments. Since the majority of materials in the library before the TIPAN Project consisted of textbooks for distribution to students, the attitudes toward circulation have continued in that mode even though a larger number of research and supplementary materials are now available in the library. The librarian plans to segregate the two functions of textbook depository cum distribution center and library cum resource center when the new facility is completed. The

present facility is much too overcrowded to be able to separate these functions at this time. Once the functions are separated, the library materials should circulate over a shorter time frame allowing more persons access to the materials. However, faculty and students will have to cooperate by returning books to accommodate use by others. Again, this type of change will require widespread support from university administration and faculty to be successfully implemented.

D. Administrative Support for Library

In December 1988 during the last visit of the information consultant, some new services were initiated by the librarian to encourage faculty to use the library regularly to keep abreast of new developments in their specific fields. A monthly newsletter entitled "New Books in the Library" was issued to each professor and faculty were encouraged to participate in the library's Current Contents Service to receive a copy of the table of contents of journals in their field of specialization. When an article of interest was noted on the contents sheet, then the library staff photocopied the article and sent it to the professor. Both of these services were very well received and utilized by the faculty. Unfortunately, during the student unrest in the spring of 1989, the university administration removed the photocopy machines from the library to the students' jurisdiction. This act effectively suspended the current awareness service for faculty as it was dependent on being able to provide copies of contents pages as the new issues of journals arrived in the library. Many faculty who had come to rely on this service were dismayed to learn that it could not be reinstated until the proper equipment was again available in the library. On several occasions Mr. Attaullah brought this matter to the attention of the Vice Chancellor, but as of this date, no equipment has been made available to replace the photocopy machines which were transferred out of the library.

The monthly newsletter of new materials arriving in the library has met a similar fate. This service was dependent on copies being produced on the new offset machine. Mr. Attaullah's request for offset copies of the monthly list to distribute to all faculty and outreach stations was denied. Apparently there has been some difficulty with both the machinery and acquiring a properly trained operator.

In all the planning papers for the NWFP Agriculture University, it has been emphasized that use of library materials needs to be integrated into the teaching, research, and outreach programs. Mr. Attaullah has progressed admirably in organizing the library collection so that pertinent materials may be retrieved more quickly and efficiently. However, he needs to be in on the planning of programs which have implications on the activities and services of the library. At present, the library is represented at the administrative level by the Librarian-in-Charge who is a senior member of the faculty, but who is not intimately familiar with the programs and services in the library. Mr. Attaullah, the librarian, remains at grade 17, even though he has been more than qualified for promotion to a higher grade since his return last September. His promotion papers have evidently been held up somewhere in the system. Certainly the integration of the library into the teaching and research activities of the university would be more quickly and effectively accomplished if the librarian's status were raised so that he could interact with the administrators planning and implementing the development of the university.

E. *New Library Facilities*

In December 1988, the librarian and the information consultant had the opportunity to see the blueprints for the new structure which will house the library. Several questions arose during that time which neither the TIPAN team members nor Mr. Fleming could answer. During this visit, a meeting was arranged with Mr. Howard Landskroner, the on-site SOM architect, to discuss some of these questions. Dr. Eddington attended the meeting along with Mr. Attaullah and the information consultant. Mr. Attaullah was to write a detailed memo to Mr. Landskroner after the meeting outlining the items of discussion and agreement. Some of these features discussed are outlined below.

1. It was noted that the book lift was removed from the final drawings. Mr. Landskroner assumed it had been eliminated to cut down on the cost. Mr. Attaullah explained that with the primary area for shelving materials on the first floor and most of the seating for patrons on the ground floor, there would be a significant amount of transport of books back up to the first floor for reshelving. The reinstatement of the book lift into the plans for the library was a top priority to aid in the burden placed on library staff to keep the collection in order so items may be effectively retrieved.
2. There was no provision for a circulation desk in the current plans. This omission needs to be addressed immediately.
3. The number and location of electrical and telephone outlets was discussed. New outlets were requested in areas where they were lacking, but where service points are anticipated.
4. The various pieces of furniture supplied under the TIPAN project were explained in detail. There was some question as to the usefulness of some of the units, particularly the map and microfiche cabinets, as currently designed. Mr. Attaullah will work with the architect to prepare designs which better meet the working needs of the library.
5. It was noted that the shelving was modular and could be rearranged to provide delineation of work areas and service points.
6. There was a question as to how the emergency doors would work. In the present library, there is an emergency door out of the library on the second floor. However, it remains locked with a padlock and the key to the lock is stored on the ground floor. In a true emergency, the padlocked door would hinder quick exit from the second floor reading area. It is important that emergency doors be made available in the new building that are easily opened in the case of a true emergency, but ring an alarm when they are opened otherwise.
7. It is still not clear whether or not the new library building will be air conditioned. Climate control in this type of facility is beneficial to the preservation of the collection and is inviting to patrons to utilize the materials within. With the journal collection and a large portion of the research collection non-circulating, the controlled climate

in the building will encourage persons to use the building for their research work. When the main library at Chulalongkorn University in Bangkok, Thailand moved into a new, climate controlled facility in 1981, the usage of library materials and the facility increased several hundred percent and has continued to maintain a high level of use.

8. Evidently lighting fixtures will be provided in all the areas of the new building except for the main reading area on the ground floor. There will be some natural light from windows two stories above the area, but the NWFP will need to provide table lights for readers when the facility is open at night.
9. Book shelves, microfiche cabinets, periodical shelves, and map cabinets are to be provided under the TIPAN Project. All other furnishings such as study tables, carrels, desks, processing tables, etc. are to be provided by the Government of Pakistan. Mr. Attaullah plans to work with the university administration and Department of Works on plans for furniture and lighting equipment required in the library.
10. An area for students to deposit their own books and personal belongings while working in the library needs to be added to the interior design of the library. Again, Mr. Attaullah plans to work with Mr. Landskroner to determine an appropriate area for this need.

F. *Work with Related Groups*

In addition to working with Mr. Attaullah and the library staff, the information consultant met with other groups around the university to discuss their information and computer needs. Dr. Seiders and Mr. Inamul Haq had just been in consultation with the computer committee regarding purchase of another group of microcomputers. There was some question as to whether 286- or 386-based machines should be acquired, or a combination of the two. The information consultant suggested that the 386-based machines would carry the university nicely into future years. It was stressed that one of the reasons the NWFP-AU was so well advanced in the computing area is that 286-based machines were purchased in 1985 for the university. These were the newest technology available at the time and they continue to be able to handle the requirements of numerous software upgrades to date. However, the 286-based machine is now old technology and many future software upgrades may require the increased RAM and/or the 32-bit processor in the 386-based machine which has become the new standard for microcomputers. Obtaining a group of microcomputers which are the best available will keep the NWFP-AU at the fore of computing power for several years to come. If the budget for purchasing this new group of machines prohibits buying all 386 machines, then a combination of the 286 and 386 machines would be the next best alternative. The speed of the 386-based machines installed in the library during this trip make a big difference in the time required to process records in the 5 MB database which supports library activities.

Mr. Faridullah Shah, librarian at the Institute for Development Studies, requested assistance from the information consultant to reinstate the IDS database which had been set up for him in December 1988. Mr. Faridullah is trying to computerize the holdings of the IDS Library under

extremely difficult conditions. While working with him, it was barely possible to copy a file from his hard disk to a floppy disk, as the power supply in the IDS quarters fluctuates almost constantly. The small stabilizer to which the computer system is attached seems to have no effect on the ups and downs of the electricity supply. The information consultant was able to restore the database using the portable computer she brought to Peshawar. This working copy was then added to the IDS Library computer. However, the librarian will not be able to continue adding to the database unless an uninterrupted power supply (UPS) is provided for his computer equipment. A UPS unit like the one purchased for the main library computer should be obtained for the IDS Library equipment so computerization of the IDS collection may continue.

An administrative software package, OSIRIS, has been purchased as per the request of Dr. Eddington and Dr. Hafeez, the Director of Teaching. This package can provide course lists, class rolls, student grade reports, etc. when it is fully implemented. Preliminary discussions were held with Dr. Eddington, Dr. Hafeez, Mr. Inamul Haq and two of his staff, and the information consultant to review the steps necessary to implement the software. Basic information required by the system with respect to students and faculty at NWFP-AU is available and should be entered into the administrative database in OSIRIS. Information on courses offered and professors teaching those courses has not yet been finalized, but as that information becomes available, it should be added to the OSIRIS database. In order to fully utilize this software package, one person should be designated as manager of the database. This person would be responsible for deciding what pieces of information are essential to effective utilization of the system, supervising clerical personnel who input, update, and maintain the information in the database, and generating routine and special reports. The registrar's office is often the unit responsible for such information. However, the NWFP AU registrar is presently studying at the University of Illinois. It might be worthwhile for him to work with the information consultant in Illinois to set up the databases to include the information required for the software package as well as to add those items required by the university administration. The information consultant has a vested interest in this package being implemented as quickly as possible as the library requires data on students and faculty at NWFP-AU to implement its computerized circulation system.

On Sunday, July 23rd, Mr. Attaullah and the information consultant traveled to Islamabad to meet with Mr. Harry Dickherber at USAID and members of the MART Project team at the Pakistan Agricultural Research Council (PARC). The meeting with Mr. Dickherber was cut short due to our late arrival, but discussions were held with Ms. Kathy Norris who is coordinating the purchase of microcomputer hardware and software for the Agricultural University at Faisalabad. Software and hardware used by the NWFP Agricultural University were discussed. Ms. Norris was also brought up-to-date on computerization activities in the NARC Library and the NWFP-AU Library where INMAGIC is used as the primary database management software and WordPerfect as the word processor. The value of establishing systems for the library at Faisalabad compatible with those already in place at NARC and NWFP-AU was stressed.

Later in the morning Mr. Attaullah and the information consultant went to PARC Headquarters to meet with Dr. Bill Wright and Dr. Cordell Hatch, members of the MART Project team and Mr. Malik Mushtaq Ahmad, Director of Communications and Publications at PARC, and Mr. Shaheen Majid, Documentation Officer in the Directorate of Scientific Information. There is continued interest in cooperation and sharing of information between PARC and the agricultural

university libraries in Pakistan. With both PARC and NWFP-AU using the same software for their bibliographic databases, sharing of holdings is possible at this time. What has not yet been designed is a working plan for interlibrary cooperation. The obstacles at this point in time tend to come from the administrative level of cooperating organizations. It was suggested that a memorandum of cooperation be initiated at the director level to formalize the means by which networking may be implemented. Mr. Attaullah, Mr. Mushtaq and Mr. Shaheen will work on a plan of action to formalize interlibrary cooperation and sharing of resources among the agricultural research organizations in Pakistan.

CONCLUSIONS AND RECOMMENDATIONS

A. *Acceleration of Data Input*

This visit to Peshawar was both productive and informative. Computerization of library activities was furthered as data prepared by the library staff and the information consultant were merged into a single database representing approximately 60% of the titles in the collection. Procedures for preparing and inputting data into the database were refined so that incomplete records would be updated and unnecessary duplication of titles and efforts would be eliminated. Input into the database for older titles needs to be completed so that data is available to implement a computerized circulation system. Input of data for new materials must be continued on a timely basis so that a backlog of uncatalogued books is not created. Completion of the remodeling of the library work room will facilitate better access to the computers and speed up the data input process.

B. *Staff Commitment to Quality*

With the training and practice provided by Mr. Attaullah and the information consultant, the technical expertise now exists to build up a substantial database of information on materials available in the library. What is now required is an emphasis on the *quality* of information added to the database. Each staff member must become personally committed to producing high quality and accurate information for the system. Without the personal commitment on the part of each staff member, errors will be introduced into the system which obstructs the integrity of that system. There needs to be recognition of and rewards for those who are diligent in their efforts. The administration must provide an arena for development and continued support of programs and systems implemented by the library to further the research and teaching activities of the University.

C. *Reinstatement and Continued Support for Library Services*

Library services which have been suspended due to the removal of photocopy machines from the library need to be reinstated. Support from the administration will be required to obtain the necessary equipment as soon as possible. Care must be taken so that future actions do not hamper programs which enhance the teaching and research functions of the university.

D. *Upgrading of Status of Librarian*

Lip service is continually given to the importance of the library in the development of the university. Measures must be taken to upgrade the status of the librarian so that he may more readily participate in the planning of activities and systems which directly impact on the library.

E. *Future Activities*

1. Institutional support needs to be provided for Mr. Attaullah to continue efforts to establish working linkages with PARC and the other agricultural universities in Pakistan.
2. The inventory of journal holdings needs to be completed so that the computerized check-in of journals may be implemented during the consultant's next visit.
3. Data input of records for older titles in the collection needs to be completed so that a book catalogue of library titles may be produced and distributed to departments, research institutes, and outreach stations during the consultant's next visit.
4. The source for information of faculty, staff, and students needs to be identified so the computerized circulation system may be implemented during the consultant's next visit.

Appendix I

**Procedures for Adding Books
to the NWFP-AU Library and AULIB Database
July 1989**

1. **Assign Accession Number**
Assign accession number to new book and write accession information in appropriate register. Paste in NWFP-AU book plate so accession number and call number information may be added.

2. **Search Card Catalogue**
Search card catalogue to see if the title is already in the collection. Check the edition and date of publication carefully.
 - a. **YES**
Write call number on book plate and go to step 3.

 - b. **NO**
Go to step 3.

3. **Search AULIB Database**
Search the AULIB database to see if a record already exists for the same title. You may need to search both the title and author fields, particularly on proceedings of conferences. Use one of the following commands to check all possibilities for title and author searches.
 - * g au/aau cw [author name]
 - * g ti/ati st '[beginning of title]
 - a. **YES**
 - (1) Check edition and date to make certain it is the same title. Check call number field (CN). If there is a discrepancy with the call number, look for the various copies of the title on the shelves and bring them together under a single number.
 - (2) Complete the call number and copy number on the book plate and then fill in the Change Record Worksheet to show the new copy number(s) to be added to the record.
 - (3) Place the book with correct call number information on the book plate on the shelf for books to be labeled and then shelved in the collection.
 - (4) Place Change Record Worksheet in file for changes to be made to AULIB database.

b. NO

- (1) Prepare data entry worksheet. The number placed in the NO field should be the accession number of the first copy of that title. Copy 1 of the title should be stamped for the Reference copy.
- (2) If there is no Library of Congress or British Library Cataloguing in Publication information on the back of the title page, search the AULIB database for other titles on the same subject. Assign an appropriate call number, category number from Dewey, and subject headings. Write them in the CN, CA, and SUB fields respectively.
- (3) Complete the call number and copy number information on the book plate inside the book.
- (4) Place book(s) on shelf for labeling.
- (5) Place worksheet in file for adding to database.