

FINAL REPORT

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MUCIA/AID Project at
THE INSTITUTE OF AGRICULTURE AND ANIMAL SCIENCE
of TRIBHUVAN UNIVERSITY
Rampur, Nepal

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(Midwest Universities Consortium for International Activities)
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EXECUTIVE SUMMARY

On September 30, 1984, The Midwest Universities Consortium for International Activities (MUCIA) completed a nine-year, 5.3 million dollar contract with USAID and the Government of Nepal (GON) to help develop Tribhuvan University's Institute for Agriculture and Animal Science (IAAS). The project officially began on December 1, 1975, with the signing of the contract, but MUCIA's involvement with IAAS began in 1972 when MUCIA and the GON, with USAID funding, conducted a prefeasibility study to begin the planning process for the Institute.

The overall mandate was to establish and develop an Institute to train personnel to meet the manpower needs for the agricultural sector of Nepal. The goals and plans for the Institute were modified and amended several times during the life of the project to fit new needs and policies of the Ministry of Food and Agriculture and the Ministry of Education. IAAS has evolved from a unit offering preprofessional training for potential Department of Agriculture personnel and secondary school vocational agriculture teachers into an institution offering not only nonacademic preprofessional training, but also the I.Sc. general science degree and the B.Sc. degree in an integrated program of teaching, research, and service. The Institute continues to plan for the future, and, at the close of the project, was designing an M.S. program. The Ministry of Education has also indicated that it is interested in the possibility of joining IAAS with three of Tribhuvan University's other institutes to form a new University of Science and Technology.

During the nine-year in-country phase of the project, a total of 14 long-term technical advisors provided assistance to the Institute. Twenty-nine short term technical specialists were brought in to help with the development of specific programs including, but not limited to, curriculum development, laboratory planning and development, library development, and campus planning.

One of the important programs associated with the project was manpower and staff development. At the beginning of the project, the IAAS staff consisted of a Dean and 21 faculty members. In the first official workplan, manpower and staff projections for the Institute's future programs were developed and a goal of 93 permanent staff members by 1985 was established. The IAAS Bulletin published in September 1984 puts the number of permanent faculty at 98 on the Rampur campus with an additional 12 and 24 faculty members at the Lumjung and Paklihawa branch campuses, respectively.

During the life of the project, 38 staff members went abroad to receive training leading to the M.S. and Ph.D. degrees. Most of the degree training was in the United States, but eight IAAS staff members received their M.S. degrees from the University of the Philippines at Los Banos. It is an important point that all but three trainees had returned to Nepal by the end of the project and that the success rate was 100%; no one failed to complete the degree or training programs.

In addition to the 38 staff members trained under MUCIA sponsorship, 29 staff degree and training programs were provided by USAID directly (mostly in India) and 9 faculty members obtained other sponsorship for degree programs. Thus the total number of staff receiving training during the life of the project included 78 individuals.

In addition to degree programs, several types of short-term training were employed to enhance the professional development of Institute personnel. These included USDA short courses or other special programs, group and individual study tours, courses on campus on such topics as statistical methods and research design, effective teaching, management and decision-making, and a special course in administration and management given at the University of the Philippines at Los Banos for IAAS senior administrators.

At the beginning of the project, the IAAS administrative infrastructure consisted of a Dean and the faculty loosely divided into three groupings: Plant Sciences, Animal Sciences and Rural Development. All decisions had to be made by the Dean alone. By the end of the project the administrative infrastructure had developed to the point that in addition to the Dean, there were also an Assistant Dean for Academic Affairs, an Assistant Dean for Administrative Affairs, 2 Campus Chiefs for the branch campuses, and 11 academic departments. In addition, plans were underway for a third Assistant Dean. For all of the above, clear job descriptions had been developed, and the Institute was running smoothly. A very active system of committees was also in place to ease the rapid development of various programs on the campus (e.g., the Research Committee, the Extension Committee, the Curriculum Development Committee, etc.).

The relative physical isolation of the campus changed markedly during the life of the Institute. The move to Rampur from Kathmandu in 1973 was accomplished by loading staff, almost 200 students, and office equipment into trucks and making the 9- to 12-hour trip over the Raj Path through Hetauda to Bharatpur and then the final 13 kilometers to Rampur. The road between Hetauda and Bharatpur was but partially paved and rivers had to be forded at several points. Floods or high water could halt a trip midstream for one to two days. The dirt road from Bharatpur to Rampur was so bad during the monsoons that the initial MUCIA contract provided for the renting of elephants for transport should it prove necessary.

By the close of the project Kathmandu was but 4 hours' travel from the campus at Rampur via the new Chinese-built road from Mugling to Bharatpur, and the road--now paved with USAID assistance--from Bharatpur to Rampur.

Communications with Kathmandu are still handled by 2-way radio as they were during the life of the project, but a telephone connection will soon be made.

Coterminous with the MUCIA project, USAID provided funding for a companion project administered by the Ministry of Education to develop the campus' physical plant. The only structures on the site at the beginning of the project were several older buildings that had been part of a USAID-funded Panchayat Training Center: one dormitory, one administration building, one classroom building and several staff quarters. Classes were occasionally held under the trees. Today, the more than 700 students on the main campus live in three new dormitories and one remodeled dormitory, attend classes in three new classroom/laboratory buildings, and find one of Nepal's best collections of books and journals related to agriculture in their new library building. A new student and faculty canteen serves meals at reasonable prices. More than 30 new staff quarters have been constructed and the trailers in which the MUCIA advisors initially lived have been converted to living quarters for the Institute's female students.

In keeping with the evolving mission of the Institute, the project helped to establish a campus research program and provide financing for 28 research projects, 22 of which were completed by the close of the MUCIA project. Some of the results of this research are now used in the pilot extension project that regularly assists local farmers with advice, services, and on-campus demonstrations and training in specific areas. The IAAS Journal, established in 1977, has published 6 issues, and regularly includes articles based on research at IAAS as well as articles by other scholars.

Of course, the chief measure of the success of the project is the production of well-trained agriculture students. Between the project's inception and 1983, the IAAS graduated more than 2595 JTA (one-year program) students, 1338 JT (two-year program) students, and 237 B.Sc.Ag. (three-year program) students. A recent study of IAAS graduates (one of the research projects funded by MUCIA) showed that the majority of the graduates felt that the IAAS had prepared them well for their current jobs and that their employers also felt that they were getting well-trained employees.

The growth and development of IAAS in this nine-year period are accomplishments in which the Government of Nepal, Tribhuvan University, MUCIA, USAID, and, most of all, the faculty, staff, and students at IAAS can take pride. The 1972 prefeasibility study for the MUCIA/USAID project at IAAS noted that "...the institutionalization of an agricultural education capability at the highest levels in Nepal, competent to apply science to the life and work of rural Nepal, is a task requiring from two to three decades..." In this light, what has been accomplished by IAAS in its first decade is remarkable.

PREFACE

I was privileged to serve on the MUCIA/USAID project at IAAS first as a short-term advisor in Rural Development September 17 - October 16, 1982, and then as long-term Rural Development advisor from December 13, 1982, through the close of the project on September 30, 1984. In addition, because the MUCIA team leader terminated his service early, I served as team leader for the final four months of the project.

Perhaps because I became involved with the project in its final two years when the majority of the dynamic and well-trained faculty had returned to campus, when a new dean had brought a new leadership dimension to the Institute, and when the directions of IAAS were fairly well-established, I take a very positive view of the progress and development of the Institute. And that view is reflected in this report. It is easy enough to point out areas of weakness at IAAS as it would be in the case of any such young organization. What I have chosen to record is the course of accomplishment. This is not to say that there is no room for improvement, and I have noted some of those areas here. Other problem areas and suggestions for improvement are summarized in the reports of Sofranko and Odell (1984) and James Miller (1983). But the future of the Institute will be built on the base that has been established and that is the concern of this report.

Herbert L. Whittier
MUCIA
February 1985

LIST OF ABBREVIATIONS AND ACRONYMS AND OTHER TERMS

IAAS -- Institute of Agriculture and Animal Science

HMG -- His Majesty's Government

DOA -- Department of Agriculture

MCA -- Ministry of Agriculture

J.T. -- Junior Technician -- often an extension worker

J.T.A. -- Junior Technical Assistant -- often an extension worker

Panchayat -- local government unit

USAID -- United States Agency for International Development

USAID/N -- the USAID mission in Nepal

USAID/W -- USAID's Washington, D.C. offices

MUCIA -- Midwest Universities Consortium for International Activities

TU -- Tribhuvan University

ADO -- Agriculture District Officer

GON -- Government of Nepal

JAR -- Joint Annual Review

CDC -- Campus Development Committee

ADC -- Agricultural Development Council

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I. INTRODUCTION

A final report for any project may take many forms ranging from the extremely detailed to the broad brush of generality. Since its inception on December 1, 1975, the MUCIA/USAID/IAAS project has seen no lack of reporting. In addition to semi-annual progress reports, reports on joint annual reviews, end-of-tour reports by both long and short term technical advisors and consultants and periodic workplan revisions, there have also been periodic fiscal reports, term reports for individual participants in training, and study tour reports. The Institute itself has modified its curriculum, prepared planning and evaluation documents, conducted and reported on research and developed a journal to report its own and others' research. It has also developed a weekly newsletter to keep its own staff, students, and others abreast of recent developments at the Institute. There is no point in re-presenting the detail of these and other written documents here. Rather the suggestions of both the USAID/Nepal Project Officer as well as MUCIA personnel argue for brevity. For this reason details will be avoided in text save for discussing the development of the project, its goals and expectations, and shifts in those goals and expectations and to demonstrate the major accomplishments of the project. Lists of printed documents by MUCIA and IAAS are appended to help readers seek additional information if desired. Other attachments include lists of advisors and consultants, participants trained, student output and other matters of accomplishment.

The major overall objective stated in the original 1974 USAID Project Paper was to increase agricultural production in Nepal. A specific goal to help achieve this objective was to assist the Government of Nepal's Tribhuvan University in developing the Institute of Agriculture and Animal Science so that Nepal could train individuals to help fill the manpower needs in the agricultural sector. The facts that 85 to 90% of Nepal's population of over 16 million people are engaged in agriculture, that over 60% of Nepal's GNP results from agriculture, and that agricultural yields are dropped in proportion to population increases each year, underline the critical importance of this task.

In June of 1974, USAID authorized \$3.2 million for the IAAS project and in December of 1975 signed a contract with MUCIA for technical assistance, training, equipment and support of the project.

The statement of project purpose in USAID's original Project Paper (1974) was "to expand and improve the IAAS so that it will be capable of providing quality training and academic programs for (1) middle and high level officials in the Ministry of Agriculture; (2) vocational agriculture teachers and supervisors; and (3) farmers at the community level." Training at the B.Sc. level was included here as only one of a range of training programs. IAAS began to offer the B.Sc. program in the winter of 1977.

A 1981 USAID project amendment dealt with formalities of extending the contract and additional funding of \$2.3 million but did not actually amend the project to reflect changes in program emphasis.

The 1983 USAID project amendment revised the project purpose and scope to reflect the shift in emphasis from the training of extension workers,

vocational agriculture teachers, and farmers to training B.Sc. candidates. This change of emphasis did not alter MUCIA's basic direction as stated in its contract with USAID to:

- "1. Assist in the overall development of the institution, including academic planning with the Chief of Party working with and through the Dean at IAAS.
2. Assist in the development of a departmental structure, curricula, of courses of study, and practical field and laboratory experiences. Contractor staff members will initially teach a minimum number of courses.
3. Assist with staff improvement, participant selection and campus planning.
4. Assist with the development of an extension/adult/nonformal program for villages and other out-of-school youth and adults." (First revised workplan Nov. 1976 pg. 3.)

To achieve these objectives, program goals were set in five areas:

- "1. Staff development. This goal will have been achieved when the professional and administrative staff of IAAS is of sufficient size, competence, and professional qualification to achieve the broader goals stated above.
2. Organization. This goal will have been achieved when the Institute is adequately organized to fulfill its mission.
3. Program development. The goal here is development of instructional plans and activities at several levels (certificate, diploma, degree, etc.) for both formally enrolled students and special in-service and other short courses, as well as development of applied research programs and locally oriented nonformal extension education programs.
4. Administrative support programs. This goal will have been achieved when the IAAS physical plant has been designed, constructed and regularly maintained appropriately, when administrative staff has been recruited, trained, and organized, and when the institution is satisfactorily financed, controlled, planned, and linked to other units of Tribhuvan University, of His Majesty's Government, of the international agricultural research and education network, and of Nepal's agricultural economy.
5. MUCIA team management. This is an internal goal of the MUCIA team, and is achieved to the extent that the MUCIA team is able to operate effectively from its base at Rampur." (First revised workplan, Nov. 1976 pages 3-4.)

The changing emphasis in the goals and strategies are reflected in the series of work plans developed by the long-term MUCIA technical assistance teams throughout the life of the project.

II. A BRIEF HISTORY OF IAAS

The Institute of Agriculture and Animal Science had its beginnings as the Agriculture School established in 1957 by the Department of Agriculture to train mid-level manpower, including extension workers. In 1969, the school became the College of Agriculture and was still under the auspices of the Department of Agriculture. The Tribhuvan University Act of 1971 transferred the college to Tribhuvan University and renamed it the Institute of Agriculture and Animal Science, one of thirteen institutes in the university structure. In the spring of 1973, the Institute was moved from the Kathmandu Valley to its present location at Rampur, Chitwan District [Tribhuvan University Calendar 1975:64]. There it was given the facilities of a former Panchayat Training Institute consisting of 130 hectares of land and several buildings [IAAS Bulletin 1984 (2041)]. At that time, IAAS was engaged in training J.T.A.s (one-year program), J.T.s (two-year program), and candidates for the Diploma in Agricultural Education (two years beyond the J.T. level). This latter program was designed to produce vocational agriculture teachers for the secondary schools.

Even before the agricultural training facility had received institute status, HMG had requested the assistance of USAID to develop an institution of higher education in agriculture. To this end, USAID contracted with MUCIA for a study of Nepal's needs in this area. This study was done, in cooperation with Nepalese agriculturists, in the summer of 1972. The resulting report, Higher Education in Agriculture in Nepal: A Report of a Prefeasibility Study, supported the need for an institution of higher education in agriculture and suggested a strategy for assistance. A USAID Project Paper was developed and a contract for technical assistance for the development of IAAS was signed with MUCIA on December 1, 1975.

Prior to this and as an interim measure to assist the fledgling institute, USAID provided two American vocational agriculture specialists to advise in the development of the vocational agriculture teacher training program, then envisioned as one of IAAS's major programs. Dr. D.J. Hays served in this capacity in 1973-74 and Mr. M.B. Asay served in 1974-76. The first members of the first MUCIA technical assistance team (Dr. Glen Maddy and Dr. O. Donald Meaders) arrived in Rampur in February of 1976, shortly before Mr. Asay's departure.

These early months at Rampur involved something of a pioneering element. Access to the Rampur campus from Kathmandu was not a simple matter. First, the ten-to-twelve hour trip over the Raj Path had to be negotiated when the roads were passable. On occasion the rivers that had to be forded between Hetauda and Bharatpur were so swollen that an extra day had to be taken waiting for the waters to go down so that a vehicle could pass. The 13 kilometer road from Bharatpur to the campus was in such bad condition that the original contract had provision for the renting of elephants for transport should it prove necessary. There was an airport at Bharatpur, but in the early days of the project flights were irregular and, by the close of the project, the airport had been closed. On the campus, the initial MUCIA teams were housed in used trailers that had been provided by USAID. There was no dependable source of electricity so a system of generators was installed by MUCIA to provide electricity for day-to-day operations including the pumping of water for a dependable water supply. Throughout the life of the project, there was no

telephone system. The main communication link with the outside world was radio, with a unit in the IAAS/MUCIA office at Rampur and another unit at the IAAS/MUCIA office in Kathmandu.

Today an all-weather road connects Bharatpur with the campus and the new road from Bharatpur to Kathmandu can be traversed in 4 hours. A fairly dependable source of electricity comes to the campus over the transmission lines of the Nepal Power Company. The radio is still in use, but, in a short time, telephone lines will connect the campus with the rest of the world.

In 1976 the Institute was operating with approximately 200 students at the Rampur campus and less than two dozen staff members, assisted by members of the MUCIA team and several Peace Corps volunteers. The initiation of the MUCIA/USAID project at IAAS began a period of great flux in staff composition as new staff members were recruited, staff left for study in India, the Philippines, and the United States, and others returned from study programs. The permanent staff was supplemented by Department of Agriculture personnel on deputation, temporary hires, and personnel from India hired on contract [Annual Report 2033-2034 (1976-1977) IAAS, Rampur, Nepal]. By the close of the project in September of 1984, student enrollment on the Rampur campus alone had more than tripled and the number of staff had nearly quadrupled. The addition of an adjacent government livestock farm to IAAS in 1978 brought the land area of the Rampur campus to 235 hectares.

Of course, the growth and development of IAAS over the past eight years has not been in just numbers. It has also grown in facilities and in programs and has seen a reorientation of its goals. The general, overall goal of the Institute remains the supplying of trained manpower for Nepal's agricultural sector but the strategy has changed substantially since the initiation of the MUCIA/USAID project at IAAS. In USAID's original Project Paper [1974], IAAS was seen as providing a wide variety of agricultural training at various levels, including: 1) training vocational agriculture teachers for secondary schools; 2) providing one-year and two-year programs to train personnel for employment with the Ministry of Agriculture (J.T.s and J.T.A.s) and other employers; 3) training for farmers; 4) a variety of non-formal education programs for adults and out-of-school youth; and 5) short courses and in-service training for Ministry of Agriculture personnel and those in commercial agriculture. Some of these early aims may have been overly ambitious. In addition, HMG policy has changed over the course of the project.

The training for secondary school vocational agriculture teachers (Diploma in Agricultural Education) was discontinued in 1979 in response to a decision on the part of HMG to de-emphasize vocational programs in the secondary schools. Neither students, parents, nor teachers had expressed enthusiasm about such programs.

The positions of IAAS in the training of J.T.s and J.T.A.s is still evolving. In the past, these programs at IAAS have been fairly academic and, largely in response to student demands, provided for upward mobility into the B.Sc. program. As currently envisioned, the new J.T.A. training program, which is to be conducted largely at the Lamjung and Paklihawa branch campuses, will be a practical, non-academic program and will not provide direct access to degree programs. The J.T. (second year) training program will be phased

out by the 1985/86 academic year. After that successful J.T.A.s will be eligible for promotion to the rank of J.T. in the government service after they have proved their capabilities.

Training for farmers through IAAS has been centered around the teaching and research functions of the Institute. These programs have attempted to serve the expressed needs of local farmers, incidentally promoting rapport between IAAS and the surrounding communities, while combining that service with the need for student training and for research. The Institute has a limited mandate to carry out more formal training, such as short courses, for farmers; this remains the primary responsibility of the extension service of the Department of Agriculture.

The early vision of the IAAS offering a variety of nonformal education programs for adults and out-of-school youth has never materialized and may, indeed, have been overly ambitious. In fact, the Institute has had neither the budget nor the staff to offer such programs.

The idea that IAAS would offer short courses and in-service training courses for Ministry of Agriculture personnel has only recently taken root. During the first several years of the project, many members of the IAAS staff were abroad for training, and there was not sufficient staff on campus to offer such programs at Rampur. As a new institution, furthermore, the IAAS did not yet have a reputation that would encourage the MOA to send its staff there for training. An additional hindrance was the remoteness of Rampur and the difficulty of getting to Rampur from Kathmandu. In the last two or three years, however, these problems have largely been overcome. With the large majority of the IAAS staff having completed training and degree programs and with more of its graduates working in the agricultural sector, IAAS now has both the staff and the reputation to make it a likely location for in-service training of MOA personnel. In addition, improved roads have made Rampur more readily accessible. Indeed, just as the project was drawing to a close, the DOA began negotiations with IAAS to design a course for some of its staff. A proposed new guest house on campus will provide much improved facilities, and IAAS can be expected to play a major role in offering in-service training for government personnel in the future.

IAAS began offering the B.Sc. in the winter of 1977. This was a three-year program after the completion of the I.Sc. (Ag.) or general science I.Sc. Since that time, the development of the B.Sc. program has been a major emphasis of the Institute. There has been a shift from seeing the B.Sc. as the next step in the J.T.A./J.T. training sequence to focus on the B.Sc. as an integrated program. Early in 1984, the IAAS staff proposed to the Faculty Board a new B.Sc. curriculum, a five-year program following to S.L.C; this program was approved. Students who have completed the I.Sc. in general science or the I.Sc. (Ag.) will be permitted to enter the program at year three if they meet the entrance requirements. The three-year B.Sc. program will be phased out with its last group of students being admitted in the 1986/87 school year. The Institute will then offer: 1) a one-year, non-academic preprofessional program (J.T.A.) mostly at the Lamjung and Paklihawa branch campuses; 2) an I.Sc. general science program (two-year) at Rampur; and the five-year B.Sc. program at Rampur.

Clearly, the IAAS has gone through a number of changes in the definition of its mission. The early view of IAAS differs considerably from the current one of an institution devoted to teaching, research, and service of an international standard. It is entirely reasonable that as the country's perceptions of its current and future needs for manpower changed and clarified, the perceived role of its primary institution for the training of agricultural manpower changed also. This whole process has been viewed in various project reports as creating "discontinuity" or "disruption" but it should perhaps be seen instead as a process of evolution. With increasing experience in planning, both the GON and IAAS have reassessed needs and priorities. What did not work has been phased out and new programs have been instituted. The early commitment to vocational agriculture training in the schools and IAAS's corresponding mandate to produce vocational agriculture teachers, for example, proved a fruitless direction. Likewise, allowing the one-year and two-year certificate programs, designed as J.T.A. and J.T. training, to be steps on an academic ladder leading to the B.Sc. program proved unworkable. Thus, these programs have been discontinued or modified. This is development -- working towards realistic and feasible programs that respond to the needs of the country. The evolutionary process has, in a very short time, brought the IAAS to the point at which it now seems to have a well-defined mission and a well-trained staff. It is now ready to move to the next phase of development -- improving the quality of its work in teaching, research, and service. The 1972 prefeasibility study for the MUCIA/USAID project at IAAS noted that, ". . . the institutionalization of an agricultural education capability at the highest levels in Nepal, competent to apply science to the life and work of rural Nepal, is a task requiring from two to three decades. . ." In this light, what has been accomplished by IAAS in its first decade is remarkable.

III. MANPOWER AND STAFF DEVELOPMENT

The development of IAAS into an on-going, self perpetuating institution required the provision of trained manpower. It would be useless for the MUCIA project to help establish programs and procedures that could not be carried out by the IAAS staff after the conclusion of the project. Therefore, one primary thrust of the project was manpower and staff development to build a staff able to carry out the triple functions of teaching, research and extension as well as to administer the operations of the Institute.

Throughout the course of the project, the manpower and staff development emphasis changed as the Institute grew and expanded. In the first year of the project, MUCIA advisors worked with IAAS to develop a 10-year time phased staffing plan and participated in the recruitment of staff and in the selection of candidates to be sent for advanced degree training. Towards the end of this first year (August 1976) the IAAS staff at Rampur consisted of the Dean and 21 faculty members: 11 in Plant Sciences, 5 in Animal Science, and 5 in Rural Development. Of these only 7 were permanent staff members. The remainder included 7 staff members seconded from the Department of Agriculture, 3 staff members from India on contract, and 4 temporary staff members. The staffing plan projected a need for a total of 93 permanent faculty members by 1985, including 18 for the branch campuses. The IAAS Bulletin for 1984 puts the number of permanent faculty at 98 on the Rampur campus with 12 and 24 faculty members at the Lamjung and Paklihawa branch campuses respectively. The current number of staff thus exceeds the initial projections in both numbers and training.

But manpower and staff development goes beyond the accumulation of numbers of persons and numbers of degrees. There must be resources, facilities, and motivation for individuals to expand their professional competence as teachers and agriculturalists. These may include formal instruction as well as opportunities to interact with other professionals in Nepal and in other countries. To this end the MUCIA project has supported short courses on campus, sent participants abroad for short courses, planned and funded study tours and funded travel and conference participation for IAAS staff.

Such activities as the seminar series, library acquisitions and the IAAS journal all contribute to a growing sense of competence and professionalism.

TRAINING PROGRAMS

Degree Training Abroad

To develop the needed corps of faculty members, IAAS began an active recruitment program throughout Nepal, and MUCIA began helping to arrange for suitable graduate programs for these new staff members.

These programs were mostly in the United States but some were in the Philippines. Throughout the project, 38 candidates were sent for degree programs (31 M.S. Degrees and 7 Ph.D. Degrees) and two for nondegree programs. Of these, all but three had returned by the end of the project and the success rate was 100%; no one failed to complete the degree or training program.

In addition to the 40 participants processed through MUCIA, 25 IAAS participant trainees were sent abroad for advanced training under direct USAID sponsorship during the course of the project and by the end of the project, four additional participants had been selected to pursue Ph.D. programs in India, bringing the total of direct USAID sponsored participants to 29. Most of these participants have now returned although a few still remain in training.

As of the close of the project, 9 IAAS faculty members had obtained additional degree training opportunities on their own either through other sponsorship or on their own resources.

Summary of Training

	Ph.D.	M.Sc.	B. Lib.	Other	Total	
MUCIA/IAAS						
USA	7	23	-	2	32	
Philippines	-	7	-	-	7	
Thailand	-	1	-	-	1	40
USAID Direct						
USA	-	2	-	1	3	
India	7	15	1	3	26	29
Individual						
USA	7	-	-	-	7	
Canada	1	-	-	-	1	
Philippines	1	-	-	-	1	9
TOTALS	23	48	1	6	78	

The list, of course, does not include faculty members who may have earned advanced degrees before joining the Institute. In addition, the majority of the Indian contract temporary staff have held advanced degrees, some Ph.D.s. Detailed lists of the training referred to above are included in the appendices along with a list, as up to date as possible, of the current faculty and staff at the Institute.

The MUCIA participant training program went beyond helping to select participants and then helping them get enrolled in academic programs. First, MUCIA worked with the participant and his major advisor to encourage participants to select research and thesis or dissertation topics that were either related to the immediate problems of Nepal or might prove relevant in the future. To this end, four of the Ph.D. level participants returned to Nepal to conduct their research. In addition, MUCIA made arrangements for each of these participants to have his major professor visit him in the field to observe and provide direction during the critical data collecting phase. This was helpful in two ways: 1) the major professor was able to provide advice to the student; and 2) the major professor was able to get a better grasp of the conditions with which the student was working.

The students involved were:

1. Dr. Fanendra Neupane
2. Dr. Tej Bahadur K.C.
3. Dr. Kailash Pyakuryal
4. Mr. Bishnu B Bhandari (Ph.D. expected March 1985)

In addition, while Mr. Gyan Kumar Shrestha was unable to return to Nepal to collect data, his major professor, who was visiting nearby, was able to visit Rampur. Two masters level students also were able to have special programs. Mr. Sapkota was sent to Belize to work with special problems in animal nutrition and Mr. Bhola Pokharel, with funding provided through his advisors at Ohio State University, was able to return to Nepal to collect economic data for his Master's thesis. The main point here is that MUCIA constantly paid special attention to the kinds of programs and the type of research that the participants were involved in. Wherever possible Nepal-relevant research was encouraged. A partial list of theses titles has been included in Appendix VIII.

Second, MUCIA tried to keep students in participant programs involved in the on-going development of the Institute and to keep them up to date with what was happening with the Institute and their colleagues. With this in mind, MUCIA established a participants' newsletter and encouraged participants to write notes about their programs. The newsletter also regularly reported news from the Rampur campus. In addition, and perhaps more important, each year the MUCIA Campus Coordinator's office in East Lansing arranged a two-to-three day workshop for all of the participants in the USA. Workshops were held in East Lansing in 1977, 1979, 1981 and 1982. In 1978, a site near East Lansing (Waldenwoods) was chosen and in 1980, the group met in Madison, Wisconsin. These workshops were frequently arranged to coincide with the visit of an IAAS or Tribhuvan University administrator so that they could participate in the program and keep the IAAS participants up-to-date on current policy and changes in Nepal. Each of these workshops was also attended by MUCIA advisors who had returned from Nepal, and the final workshop invited

IAAS staff members who were working on degree programs under other financial sponsorship to attend. Each workshop had a carefully planned program, and discussion papers were presented by both participants and advisors on topics relevant to problems of development at IAAS.

A final major activity of MUCIA to enhance the programs of the IAAS participants was helping to arrange for the annual participation of participants in professional meetings and conferences in their respective disciplines.

Formal Training: On Campus

Throughout the course of the project, MUCIA advisors at Rampur offered workshop-type training on the campus for IAAS staff in such areas as course development and teaching methods. In the final years of the project, with most faculty having returned from abroad, MUCIA arranged three training programs on the Rampur campus for IAAS faculty and one training program for administrative staff which was conducted both in the Philippines at UPLB and on the Central Campus in Rampur.

The first training course on campus was Statistical Methods and Experimental Design, presented 27 July-12 September 1983. The course included 45 lectures presented in a five week and two day period for a total of 38 IAAS faculty members.

The second training course on campus was on Effective Classroom Instruction presented during March and April of 1984. A total of 44 IAAS faculty members participated in the course.

The third training course on campus was a short course on Systematic Managerial Analysis and Decision-Making presented 6-10 August. A total of 18 IAAS faculty members and one MUCIA advisor participated in the course.

A fourth training program, designed especially for IAAS administrative staff, was Management of Administrative Aspect of Higher Education presented 11 June through 13 August, 1984. This was a continuation of a course attended by eight IAAS Administrative staff members from 11-30 June at the UPLB in the Philippines. This on-campus portion of the course was a practicum conducted by the Director of the course.

Lists of staff involved in all of the above training courses are included in the appended Manpower and Staff Development participant training lists.

Formal Training: Off Campus

MUCIA in collaboration with IAAS established needs for individual faculty members to receive additional training to enhance the development of their respective departments. Ten faculty members participated in USDA short courses in the United States or in similar types of programs between 1982 and 1984. In addition, many IAAS faculty members attended non-degree training programs under other sponsorship. A complete list is not available, but some examples of these programs are listed under non-MUCIA off-campus training in the appendices.

OTHER PROGRAMS CONTRIBUTING TO PROFESSIONAL DEVELOPMENT

MUCIA/IAAS Study Tours

During the life of the project 6 major study tours were planned and conducted by MUCIA advisors and IAAS staff members. The purposes of these tours were several and varied in composition with the period of project development and the tour destinations. The first three tours and the last tour were to India. The fourth tour was to Indonesia and Thailand and the fifth tour was to Cyprus, Greece and Italy. The first tour was in June of 1976. Dr. Meaders (MUCIA Agriculture Education advisor), Dean B. Basnyat and 4 IAAS faculty visited G.B. Pant University of Agriculture and Technology in India to observe and discuss teaching, research and the organization of agricultural programs.

A second tour to India in 1979 included Dr. Rex Ray (the MUCIA team leader), Dean B. Basnyat of IAAS and Mr. Ashok Malla, the Project Manager of the IAAS campus construction project. They visited four agricultural universities in India including the University of Pantanagar. They too were interested in university administration and curriculum but, in addition, were interested in building and maintenance programs.

The third trip to India included Dr. Garland Wood (MUCIA team leader), and six IAAS teaching staff members who visited India from 10-24 October 1981. They visited several major universities and research installations. Again, one purpose was to see the administration of Indian universities and associated programs. They were also very interested in curriculum as they wanted models to follow and were concerned that the B.Sc. Ag. students that IAAS was beginning to produce would be considered properly prepared should they wish to enroll in graduate level education programs in India.

The fourth and fifth tours ranged a bit farther afield and had slightly different missions. The fourth study tour was to Indonesia and Thailand and included Dr. Herbert L. Whittier (MUCIA Rural Development Advisor), Dean B.P. Sinha, Assistant Dean K.N. Pyakuryal and three other IAAS teaching staff members. In this case the group was also interested in the development of agricultural universities and associated programs but, in addition, visited integrated rural development projects as well as 6 universities. The tour, from 1-29 June 1983, began in Thailand with visits to Kasetsart University and various donor agencies. In Indonesia the group visited the Institute for Technology in Bogor, the University of Padjajaran in Bandung, the Gadjia Mada University in Yogyakarta, the University of Udayana in Bali, the University of Airlangga in Surabaya and the University of Brawidjaja in Malang. Two special circumstances made this a unique tour. First, MUCIA and USAID had been working with Indonesian agricultural university development for over 14 years and at least 400 Indonesians have been involved in participant training programs and have returned to help develop their universities and programs. Many of the Indonesians who hosted the tour group were ex-MUCIA participants and there was excellent rapport. Some tour members even discovered ex-classmates they had known at MUCIA universities. Second, the MUCIA advisor on the tour had been with the MUCIA project in Indonesia for two and one half years and was well-acquainted with many people, universities, and programs in the country.

The fifth tour, to the Mediterranean, involved Dr. Weslie Combs, MUCIA Animal Science Advisor, and five IAAS faculty members. This tour, which occurred between 3-25 June 1983, had slightly different purposes. The Animal Science Advisor had worked in the area and wanted IAAS staff members to observe different practices of animal husbandry, different varieties of sheep and goats, and the dairy industry in general in these countries. In a master plan for the development of the IAAS livestock farm, he had included some ideas from the Mediterranean which he felt would be useful in raising levels of production on the livestock farm and eventually for all of Nepal. Talking about exotic practices and breeds is one thing and observing systems in action is another.

The sixth and final study tour outside of Nepal was to India and included Dr. Herbert L. Whittier (MUCIA Team Leader), Dean B.P. Sinha and eight IAAS faculty members including the campus chiefs of both the Lamjung and the Paklihawa branch campuses. Between 17-29 June 1984, the group visited 4 major universities, the IARI (the major research university in New Delhi), and the ICAR (Indian Council of Agricultural Research). Again the mission was to see how the major Indian Agriculture Universities handle administration, teaching, research and service. And again attention was given to curriculum and creating a relationship between IAAS and these universities so that IAAS would gain formal recognition and its graduates would have no difficulties in being admitted to graduate programs in Indian universities. All the participants felt that this tour was extremely productive. It should also be noted that each of the universities visited had had a USAID sponsored agriculture university development project associated with it; furthermore in each case the contracting group had been a U.S. midwestern university. Most of the projects had been completed several years earlier so the tour gave the IAAS staff an opportunity to see the Indian universities functioning on their own without external assistance.

All of the tours added to the knowledge that has gone into the making of IAAS. They also allowed IAAS participants who had, for the most part, received their advanced degree training in the United States an opportunity to see institutions less highly technologized than those in the West and, perhaps more appropriate models than those from which they had received their degrees.

Conferences and Other Educational Travel

Throughout the project, MUCIA provided opportunities for many faculty members to attend conferences, visit other universities, and engage in short term travel to enhance their professional development. A complete list of these activities is not available but some of these opportunities, as well as some non-MUCIA funded opportunities, have been listed in the training section of the appendices.

Administrative Visits

During the course of the project there was a series of administrative visits arranged by MUCIA for top level administrators connected with IAAS to visit the MUCIA schools to observe administrative, teaching, research and service programs in action, as well as to meet with IAAS participants in training at those schools. The occasions of these visits often coincided with

seminars or meetings, drawing most of the IAAS participants together to meet with their administrator. MUCIA university faculty who had been advisors with the project often participated in these meetings as did MUCIA administrators or personnel from the project's campus coordination office at Michigan State University.

1984 Dean B. P. Sinha of IAAS visits Washington and three MUCIA universities

1982 Vice Chancellor Ram Chandra Singh of TU and Dean Haque of the Institute of Forestry visit MUCIA universities

1981 Dean B. Basnyat of IAAS visits MUCIA universities

1978 Dean B. Basnyat of IAAS and Vice Chancellor Jagat Mohan Adhikari of TI visit MUCIA universities.

Likewise, MUCIA administrative officials have paid visits to Rampur to keep themselves up-to-date on problems, participate in Joint Annual Reviews, and to provide assistance when possible.

Three of the four MUCIA Executive Directors have visited the project including Dr. George Axinn, who also acted as the first campus coordinator for the project and resigned his post as MUCIA Executive Director so that he could serve as Team Leader for the project. His successor as MUCIA Executive Director, Dr. John Murdock, visited the project and participated in one of the Joint Annual Reviews. Most recently, Dr. William Flinn, current MUCIA Executive Director, made several visits to the project site. Dean Ralph Smuckler of Michigan State University's Office for International Studies and Programs has been especially attentive to project progress and development and has visited IAAS several times. The visits of other persons have been indirectly helpful to the project although these have not been at project expense. Visits of members of the Michigan State University Board of Trustees, for example, furthered their understanding of the university's and MUCIA's international commitments. Likewise, the presidents of three MUCIA universities visited the project. After the project closed, President Cecil Mackey of Michigan State University and Dean Ralph Smuckler paid a final visit to the project and conferred with IAAS, TU, and USAID officials.

Four MSU faculty members, Dr. George Axinn, Dr. Irving Wyeth, Dr. William Herzog, and Dr. Darrell Fienup, have served as Campus Coordinators for the project. Dr. Fienup served in this capacity for the majority of the duration of the project -- six of its nine years. He visited Nepal regularly to participate in project reviews and to assist in planning future activities. Assistant Campus Coordinator, Ms. Ardell Ward, worked with the project throughout its entire duration and took major responsibility for its day-to-day affairs. She visited Rampur twice to assist with administrative matters. The significance of the Campus Coordinator's office in the smooth running of the project cannot be overstated. This unit was responsible for helping to place participants, for monitoring their progress, and for dealing with their problems, as well as for equipment procurement, logistic arrangements for advisors, and reporting to and maintaining liaison with USAID in Washington.

Seminars

Throughout the development of the project, seminars and lectures have been one of the ways of sharing ideas with and between IAAS staff members and contributing to their development as professionals. MUCIA consistently tried to help foster seminar/lecturer series on the campus. In the early years of the project, the majority of the seminars were presented by MUCIA advisors and visitors. Indeed, throughout the life of the project, all advisors and visitors to the campus were encouraged to give seminars or present lectures on topics coordinate with the interests or development needs of the Institute. As more and more faculty members returned from degree training and participated in research projects, it became the IAAS faculty who presented more of the seminars. This activity is increasing in popularity with both the faculty and the students. During the final months of the project, so many faculty members wanted to present talks, lectures, or seminars that it was impossible for the very effective seminar coordinator to schedule them all. This desire to share new knowledge is a good indicator of the level of institutionalization that has been occurring at IAAS.

Evaluation

The training programs as part of manpower and staff development have been extensive and productive. Trained faculty members continued to develop their skills as teachers, administrators, researchers and public service oriented persons. New programs have been designed, new curriculum developed and the infrastructure of the Institute continuously refined. Of course, the ultimate test of success is how well can the Institute respond to the needs of society, of the governmental agencies, and of the students whom they are training to work within those structures. Observation and followup studies would indicate that the Institute and its faculty are well on their way.

IV. PROGRAM DEVELOPMENT

In keeping with project goals and as specified by project work plans, MUCIA supported IAAS program development in four areas: administration; teaching; research; and extension/service. Teaching has been and will continue to be the primary focus of the Institute; the other three areas support or integrate with the teaching function. As the system in Nepal functions, the primary responsibility and funding for both agricultural research and extension on the national level lie with other government agencies.

ADMINISTRATION

Behind any program of effective administration must be an institutional philosophy and goals. MUCIA activities in administrative development at IAAS began even before the first team of long-term advisors arrived in Rampur. Dr. Axinn and Dr. Meaders (both to be among the first long-term advisors), Dr. Ralph Smuckler (Dean of International Studies and Programs at M.S.U.), and Dr. John Cantlon (Vice President for Research and Graduate Studies at M.S.U.) all visited Nepal to discuss program strategies, goals, and implementation

with I.A.A.S. staff and T.U. officials in late 1975. (Nepal Progress Report #1, July 1976, pg. 12)

Shortly after the first MUCIA advisors arrived in Rampur in February of 1976, a new I.A.A.S. Dean, who had not been involved in the project planning, was named (March 1976). At this time, the Institute operated as a unit with no divisional or department structure. Dean Basnyat held weekly faculty meetings in which the MUCIA advisors participated. Advisors assisted the Dean in developing job descriptions for the top three positions in the administrative structure (Dean, Assistant Dean for Academic Affairs, and Assistant Dean for Administrative Affairs) and to develop a budget. MUCIA also participated in such support areas as planning for the physical plant (supported by a separate AID contract) and supply management. During this early period of the project, MUCIA advisors were also involved in recruiting new staff for IAAS.

The MUCIA team and IAAS officials developed an organizational chart which had been accepted and was being implemented by the end of the first year of the project. Even so, to quote the Progress Report for the July 1976-December 1976, "Organizational Arrangements among both academic and administrative staff at IAAS up to August of 1976 could be characterized as almost completely informal, with some committee activity, but little grouping of individuals by function, delegation of responsibility on an ad hoc basis, and little or no sharing of authority" (Ch. II, p. 3). This was partly due to a high turnover of personnel and vacancies in most anticipated administrative posts. There was no Assistant Dean nor a trained accountant which meant that the Dean himself had to participate in almost every administrative transaction. In addition, the Dean himself was in a position of having more responsibility than authority. Operational procedures were largely dictated by Tribhuvan University with top-down decisions being the rule. This would be a difficult situation for IAAS Administrators in any case, but the relative geographical isolation of the Institute from Tribhuvan University makes it even more so.

In 1977, the Institute was formally divided into three units: Plant Sciences; Animal Sciences, and Rural Development. MUCIA advisors assisted in the preparation of job descriptions for the heads of these divisions. The position of Assistant Dean for Academic Affairs was filled.

By early 1979, the IAAS had grown to the point that it was necessary for MUCIA advisors to assist in the reassessment of administrative needs. The Curriculum Committee was established, the Research Committee was reconstituted and the Extension Committee was reformulated.

By late 1981, a substantial number of faculty had returned from degree training abroad but about half were still in training. In addition, the Chief Fiscal Officer returned from a non-degree training program in agricultural administration at the University of Minnesota at Waseca.

At this time, the IAAS began to organize into a departmental structure from the previous three division organization. The Dean originally agreed on eight departments, but the staff decided that only departments with six or more resident faculty would be organized. Others would be created as more faculty returned. The six initial departments were: Agronomy and Soils; Horticulture; Agricultural Botany and Plant Protection; Animal Science; Rural Development; and Basic Sciences and Humanities.

By the end of the MUCIA project there were 11 departments. In a day long faculty panel discussion/seminar "Organizational Aspects of IAAS: Views in Progress (Pyakuryal 1984)" convened by the dean in December of 1983 to discuss the organizational present and future of IAAS, all the faculty strongly supported the strengthening of departments. They urged that departments have greater decision-making power, that each department have its own budget with authority to allocate candidates for training, tours, awards, and other opportunities for professional development.

MUCIA's involvement in the development of administrative capabilities at IAAS has been continuous but it is very difficult to quantify. Such activities as providing training in the U.S. for the Chief Fiscal Officer and in the Philippines for eight members of the administrative staff as well as funding for administrative visits to U.S. universities for two IAAS Deans are easily quantifiable achievements. One can also list so many committees served on, so many organization charts drawn, so many job descriptions written. More difficult to assess are the daily interactions of MUCIA advisors with the Dean, Assistant Deans and Department Heads. The MUCIA advisors, from the inception of the project were present with advice and guidance on administrative and management issues. The decisions reached do not always reflect what advisors recommended, but this is as it must be. Ultimately, the IAAS administration must develop policies, procedures, and guidelines that will work for them in their situation.

The problems of centralized authority remain. If, as is projected, IAAS gains increased independence from the TU structure, those problems will be alleviated, but a new set of issues will arise as IAAS can no longer rely on TU guidelines but must develop its own. While centralized authority has generally been seen as a problem, it has, in a sense, protected the IAAS administration from pressures from outside as well as from its own students and faculty. It will require a greatly strengthened administration, preferably led by someone permanently appointed to the IAAS, to come to terms with these new issues.

TEACHING

The development of the teaching program at IAAS has proceeded like other aspects of Institute development, in fits and starts amidst such challenges as rapid turnover of resident faculty as they left and returned from training, administrative changes, changing definitions of national needs and priorities, and student unrest and demands.

The MUCIA team saw teaching as one of its major commitments throughout the life of the project. The work plan for the first MUCIA team stated that both the certificate and diploma programs were in transition and further; "It may be stated that the primary reason for the MUCIA Team presence at Rampur is to assist with this transition" (Ch. II, p. 5). The early MUCIA teams not only worked with IAAS counterparts to develop curricula and to design courses, but also taught courses themselves as the IAAS faculty was depleted by study leaves. This teaching not only filled temporary gaps in the IAAS staff but also provided examples of a high standard of teaching performance.

At the inception of the project, the Institute offered the one-year pre-professional program, the two-year certificate program (I.Sc. Ag.) and the four-year diploma in agricultural education. Planning was in progress for a B.Sc. program and there was, even at this early stage, speculation about the development of an M.Sc. program. It should be noted that these three programs did not necessarily operate as separate programs. Despite a tendency of MUCIA advisors to want to see these as separate programs devoted to different ends, the IAAS staff and students saw them as steps culminating in the B.Sc. The Diploma in Agricultural Education was phased out in 1978 and the B.Sc. Ag. program inaugurated in winter of 1977.

Even as the IAAS programs were in transition, the number of students continued to increase. In the first year of the project, the Rampur campus graduated 97 J.T.s and 34 vocational agriculture teachers. The first B.Sc. students graduated in 1979 with a class of 28. In that same year, the Rampur campus also produced 150 J.T. graduates and 41 vocational agriculture teachers. Meanwhile the branch campuses at Lamjung and Paklihawa had become operational and graduated 73 and 83 J.T.S.s respectively in 1979. By 1983, programs had expanded to include well over 1000 students at the three campuses: 150 at Lamjung; 450 at Paklihawa; and over 600 on the Rampur campus.

The MUCIA team worked with IAAS counterparts to revise and establish curriculum, to revise courses, and to produce course syllabi. All of the project documents from this early period emphasize the need for practical, applied training. At the same time, the dual nature of the programs described presented difficulties. The one-year program, for example, was supposed to produce competent extension workers (J.T.A.'s) with practical training while at the same time providing them with maximum transfer credit to the two-year certificate (I.Sc.Ag.) program which required one additional year to become a J.T. That program, in turn, was to produce competent J.T.'s while providing maximum transfer credit to the B.Sc.Ag. program. The B.Sc.Ag. program was to prepare competent professional agriculturalists for Nepal while at the same time turning out graduates who were able to enter graduate programs at universities anywhere in the world. This issue was discussed at the Second Joint Annual Review (1978) where it was noted that the attempt to pursue what were, in part, incompatible goals could lead to neither being done well but no decision was reached. There was reluctance to make major curriculum revisions with so many of the faculty, especially senior faculty, away on study leave.

This problem continued to receive attention throughout the life of the project, culminating in the program arrangements in effect at its close. Under the newest curriculum revisions, the one-year preprofessional program is designed to be exactly that -- not a step leading to further academic training. The certificate program (I.Sc.Ag.) designed to produce J.T.'s is being phased out and J.T. will be a promotional rank within the government service. IAAS will offer instead the two-year I.Sc. program in general science, similar to that offered by other T.U. units. The new B.Sc. program is a five year program which will admit students with the S.L.C. as well as admitting students with the I.Sc. at the third year level.

The switch to the annual system in 1980 called for a massive curriculum revision. This also brought the provision for an external examination system which made the development of detailed and accurate course syllabi particularly important because these syllabi were used in designing the exams. Some

faculty welcomed the external exam system as relieving pressure on them including physical threats from students. Now, however, many advocate the return to a semester system and to internal exams.

Throughout the course of the MUCIA project, from the first advisors to arrive in Rampur to the final team, advisors have offered workshops and seminars on teaching methodology, have emphasized these issues in their day-to-day interactions with IAAS colleagues, and have provided examples in their own teaching. A recent course offered by short-term advisors on effective instruction was well-enrolled and well-received. And yet, in reviewing project documents, it is notable that teaching improvement receives far more attention from outsiders than from IAAS staff. Such statements of goals by IAAS staff as are found in the JAR documents and in, for example, "Organizational Aspects of IAAS -- Views in Progress," emphasize the desire to expand, to increase staff, increase programs, increase training, increase facilities. On the other hand, reports prepared by outsiders over at least the last four years -- from JAR statements to MUCIA advisor's end-of-tour reports, including Soefranko and Odell's (1984) report on the progress and suggestions for the future of IAAS, stress the need to improve what exists, not to do more but to do what is there better.

The programs now in place seem likely to stand for at least the near future and the trained faculty exists to teach those programs. Improvements in the quality of the instruction should, therefore, be the priority. The problem is in how this is to be accomplished. A major difficulty, of course, is one familiar to all academics: good teaching rarely brings tangible reward to the individual. It is so in the U.S. University system also, and we should not be surprised that it is so at IAAS. Teaching is notoriously difficult to evaluate. Our own system pays lip service to teaching excellence and various universities do offer "excellence-in-teaching" awards. When it comes to the tangible rewards of professional and career development, however, promotions and salary increases tend to be tied more strongly to research productivity and publication record. Some people become good teachers simply because they find teaching personally rewarding. Those who do not, however, do not necessarily find this a handicap to their university careers. The new staff evaluation system at IAAS may help to alleviate the problem and reward teaching but it has not yet been implemented so it is difficult to predict its impact.

RESEARCH

The development of research capabilities at IAAS was a major thrust of the MUCIA project. A major step towards institutionalizing IAAS research policies and procedures was the formulation of the IAAS Research Committee in 1976. The first IAAS Annual Report (1976-77) noted that 14 research projects were underway and 13 additional projects had been approved. The Committee's report for 2036 (1979) included criteria for approving research and listed 25 approved and on-going research projects. These projects were, for the most part, constrained by limited funds and facilities. The next major step was taken in 1981 when MUCIA was authorized to provide contract funds for approved research projects for IAAS staff members. During the remaining life of the project the IAAS/MUCIA Research Committee approved funding 30 additional research projects. Seven other projects were found suitable for approval, but it was too near the end of the project to release funds for them. A total of \$60,715.19 was spent on the 30 approved research projects; 18 of the reports

on completed research projects were compiled into a volume by the Research Committee's Secretary. Reports on other research were published in the IAAS Journal. A list of most of the research activities begun and completed during the project is attached to this report.

A significant role was performed by the IAAS/MUCIA Research Committee. This Committee, headed by the Dean and composed of representatives of each of the major units at IAAS and the MUCIA Advisors, reviewed proposed research, monitored on-going research, and worked continuously through regular meetings to establish and refine guidelines for the conduct of research at IAAS. As the project was in its final two years, the discussions and deliberations at those meetings rested more and more firmly in the hands of the IAAS with the MUCIA Advisors becoming less active in the deliberations. Guidelines were well-established and the IAAS staff was devising its own solutions to problems. At the close of the project, it appeared as though the major linkages and procedures were developed and that the Research Committee would continue as a functional entity.

It should be emphasized that MUCIA's efforts to develop research capabilities did not begin with the availability of funding in 1981. Research activities were constantly encouraged, research committees were active, and in many cases MUCIA advisors themselves were sometimes involved with IAAS staff members in research projects. The list of research projects undertaken that is appended to this report is not complete because some of the early records are not complete and, in addition, many IAAS staff members engaged in their own research projects without going through the formalities of the Research Committee.

In addition to encouraging research on the part of the IAAS staff, the MUCIA project supported the enhancement of research capability in several other ways. Four of the Ph.D. participants trained under the project returned to Nepal to collect data for their dissertations. While doing their research, they all sought the advice of the MUCIA long-term advisors as well as that of other IAAS staff members. In each case, a member of the participant's Ph.D. committee was brought to Nepal as a short-term advisor to help advise the student in the field. These short-termers also presented seminars for the faculty and provided additional services to the project.

A second activity in support of enhancing research capabilities at IAAS was bringing to Rampur a short term consultant, Dr. Charles Cress of Michigan State University, to teach a course on research methodology for IAAS faculty members. A total of 38 faculty members participated in the course and of these 20 completed all of the requirements for the course. This course, which was considered the equivalent of a graduate course at Michigan State University, required each participant to prepare a fundable research proposal. The proposal was to be simple, related to local needs, and capable of being conducted with a budget of less than Rs.5,000 (US\$335.). The course participants also attempted to establish regular research seminars whereby faculty members could make presentations of proposed research to their colleagues and obtain the benefit of their suggestions and criticisms. While few of these research seminars were held after the advisor departed, the idea was accepted and will probably become a regular part of the development of research at IAAS.

In addition to the kinds of research already mentioned, some staff members at IAAS have received funding from external agencies either for individual research or as part of a larger project. For example, one of the IAAS agricultural economists was funded by ADC for research on farming systems and livestock. Another faculty member, a livestock specialist, worked with an IDRC-funded study of agro-forestry. Some faculty members have worked as consultants and advisors for HMG agencies as well as for foreign donor agencies. By the conclusion of the project, at least 15 consultancies of this nature had been held by IAAS staff members. In general this work is beneficial to both the individual staff member and the Institute. It indicates that the Institute and its faculty are gaining the respect of peers and a reputation for good work. Such positions provide research experience and extra income for faculty members as well as keeping them abreast of current problems in Nepal. What they gain they pass on to their students in classes and to their colleagues in seminars and tea shop discussion.

That IAAS and its faculty members had developed research capabilities by the end of the project is not questionable. The Research Committee must continue to refine research goals and guidelines and come to terms with the issues of how the research activities coordinate with the tasks of teaching and extension. The MUCIA project has provided laboratory equipment and facilities. Physical improvements such as the laboratory building, the north farm animal housing units and some land improvements and wells have been made. The IAAS has increased its budget for research. With these facilities, the trained staff, and the administrative organization already developed, IAAS should be prepared to make a major contribution to agricultural research in Nepal.

There are three major areas that the Research Committee should give increased attention. First, there is a need to coordinate research efforts. All research conducted by IAAS staff members should be brought to the attention of the Research Committee even though the funding may be from external agencies. Second, a faculty member's research assignments and projects should be a part of his/her official workload and related directly to his/her teaching or extension activities. Third, while faculty members should certainly not retreat from research opportunities offered through external agencies or consultancies, the time off required for such efforts needs to be accounted for in terms of the faculty member's regular commitments to the Institute.

EXTENSION AND PUBLIC SERVICE

Extension or public service activities have always been seen as an integral part of the IAAS program, and MUCIA, as an organization of land grant universities, has supported this strongly with the belief that teaching, research, and extension are mutually reinforcing activities. The extension or service functions of the IAAS not only serve the surrounding communities, but also provide laboratories for student training and bases for research.

In Nepal, formal extension activities are the primary responsibility of the extension service of the Department of Agriculture. The IAAS and MUCIA have exercised care not to come into conflict with DOA programs. Whatever programs might be instituted under the funding of the MUCIA project, the GON

is unlikely to continue funding for IAAS programs that are seen as overlapping or conflicting with the programs of the DOA. The IAAS Pilot Extension Program has, thus, always been considered exactly that -- a pilot program -- and is in no way designed to take over functions of the DOA extension program. Inasmuch as one of the early and continuing missions of IAAS has been to train personnel to become extension workers (J.T.A.s) and for other DOA positions, a key element of the Pilot Extension Program is its student training component.

One of the first activities of the first MUCIA advisors to arrive in Rampur was to visit farms, J.T.s, and J.T.A.s in the area to learn about local farmers' needs and the programs of the DOA and to learn more about the training needs of extension workers (Maddy 1977:3). The advisors also worked with IAAS staff to organize IAAS's first Field Day (also referred to as Farmers' Fair). These Farmers' Fairs have become regular events, serving to introduce farmers to the Institute and its programs, demonstrate new methods and techniques, and generally bring farmers and IAAS students and staff in contact.

MUCIA advisors have consistently encouraged research in the local area to gain an understanding of farming conditions and the constraints under which local farmers operate. Assessments of the needs of farmers have been conducted throughout the life of the project as orientations to research and teaching at IAAS. Students have regularly been involved in this work as part of their training.

Despite these early efforts, it was only within the last several years of the project that the extension/service program of IAAS took on an organized, coherent direction. In his team leader's end-of-tour report, Dr. Rex Ray stated, "Activities in the area of extension and public service have been very limited or one might say almost non-existent" (1980:9). He attributed this to the large staff turnover, lack of staff with many away on study leave, lack of staff training in these areas, and lack of focus or direction for extension and service programs. At the end of Dr. Ray's appointment, however, several staff members trained in extension had just returned to Rampur, and it was clear that this new leadership would improve the situation.

The Pilot Extension Project (PEP) was initiated, with MUCIA support, in 1981 and gave formal organization and coordination to IAAS's outreach efforts. The pilot area was Sharadanagar Panchayat, a political subdivision with a population of about 9,000 located adjacent to the campus. The stated objective of the program was ". . .to provide a channel for disseminating applicable scientific knowledge to the farmers by the IAAS faculty. As an additional benefit, students trained at this institute will have practical experience in relating to immediate problems of farmers needing solution. . . ." (Gurung and Wood 1982:3). The PEP opened an office in the village of Rampur as a contact point for farmers. Rather than coming to campus, a forbidding experience for many, and searching for the correct person to whom to address his problem or question, the farmer could come to the PEP office in the village. The contact there then could direct him to the appropriate IAAS subject matter specialist or, perhaps, to an appropriate agency. The PEP office also provided such services as veterinary medicines and pesticides at cost, up-to-date market information, sprayers, improved seeds and other formal extension activities. The PEP was also responsible for such work as setting up demonstration plots, coordinating subject matter specialists, and organizing the farmers' fairs and special training sessions on campus. An

Extension Committee, consisting of department heads was established as the policy-making body for the PEP.

Dynamic leadership has been essential for the health of the PEP and extension/service in general. For example, when the Extension Coordinator (head of the Extension Committee) left for training abroad in August of 1982, outreach activities went into a lull until his successor was appointed in January 1983. A detailed review of the development of the extension/service component of IAAS from this point (January 1983) through the completion of the MUCIA project is found in RD Advisor Whittier's end-of-tour report (1984:12-14).

During the final months of the project, several significant steps were made in institutionalizing the outreach efforts of IAAS. These included:

- 1) the formation of a new Extension Coordination Committee with members from all relevant departments, chaired by the Dean, and coordinated by a Member Secretary appointed by the Dean;
- 2) the development of guidelines for outreach efforts at IAAS which, at the close of the project, were being brought before the Extension Coordination Committee for review and refinement;
- 3) the formation of the Farmers' Advisory Board, a liaison and advisory group consisting of key members of the Extension Coordination Committee, farmers from each ward, and local panchayat leaders;
- 4) the completion of a baseline study of all farm families in the PEP for which the data are currently being analyzed;
- 5) the decision to extend outreach services to farmers in other panchayats adjacent to the campus in addition to the PEP panchayat. [This is in direct response to farmers' requests.];
- 6) the receipt of an invitation from the Department of Agriculture to prepare an upgrading, in-service training course for its extension workers (J.T.A.s and J.T.s).

This latter point is particularly significant as it indicates that IAAS has earned the respect of the Ministry for Food and Agriculture and has established a reputation. There is no doubt that the staff of IAAS has the capabilities to carry on the development of new, Nepal-specific approaches to the delivery of information and materials to the farmers. And, if the new Staff Evaluation System is instituted, they will be rewarded in the university system for this work more than they have been in the past. It should be emphasized again that the goal of IAAS is not to duplicate or replace the work of other government agencies, but to develop through practice and experiment, working with other agencies, better approaches to extension and to teach these approaches to its students and, through in-service training, to those already working in the field.

BRANCH CAMPUSES

When the IAAS was formed it inherited, in addition to its main campus in Kathmandu, J.T.A. level training programs at four of the HMG Department of Agriculture research farms. These were sometimes referred to as branch campuses and included: The Parwanipur Training Centre; the Janakpur Training Centre; the Nepalgunj Training Centre; and the Khumaltar Training Centre. When IAAS moved to Rampur in 1973, the relationship continued. Most of the teaching staff for these "branch campuses" were research farm personnel and their operating budgets were also from the research farms. IAAS, for the most part, developed the curriculum that was used at these centers. By the time the MUCIA/USAID project began, there was already discussion on (1) removing these "branch campuses" from their relationship with the Institute and (2) the Institute establishing its own branch campuses under its own control for providing preprofessional training and, at that time, farmers' training. To this end and in line with directives from His Majesty King Birendra Bir Bikram Shah Dev that agricultural institutes be established at Lamjung, Baglung, Pokhara, and Bhairahawa, I.A.A.S. proposed a three-year plan calling for a feasibility study on site and staff selection, training, campus preparation with the objectives of beginning programs for farmers short courses, applied research projects, and offering the preprofessional agriculture course to SLC holders by the third year. In 2033 (Feb 1976) a field study was begun; the four sites mentioned above and others were considered. MUCIA Chief-of-Party George Axinn along with the current Assistant Dean Dr. Kailash Pyakuryal, Assistant Dean Narayan Kunwar, Dr. Tej Bahadur K.C., and Mr. Bhola Pokharel formed the study team and designed a survey to ascertain feasibility. The IAAS faculty team mentioned above spent 40 days conducting the required survey field work. The study was excellent. Most of the conclusions of the research were followed up with action. Two of the locations became branch campuses -- Lamjung and Paklihawa -- and a third is still under consideration.

Even before the feasibility study was published in Baisaakh 2034 (April 1977), the Lamjung branch campus at Sundar Bazaar was opened. The Lamjung Branch campus was dedicated on 21 September, 1976 by the Hon. Harkha B. Gurung, Minister of State for Education. The ceremony was also attended by Sri Jagat Mohan Adhikari, Rector of Tribhuvan University, Mr. N.B. Basnyat, Dean of the Institute for Agriculture and Animal Science and Dr. George Axinn, MUCIA Chief of Party.

At the Second Joint Annual Review of the IAAS/MUCIA/USAID project (December 1, 1978) IAAS Dean N.B. Basnyat said in the opening session that, in addition to the Lamjung Branch Campus offering one-year preprofessional (J.T.A. level) training to mostly local students, a branch campus would be opened in the next semester at Paklihawa (Bhairahwa) to train as many as 325 students at a time in a two year Certificate program (JTA and JT level). It was also anticipated at that time that two more branch campuses would be opened the next year. In the same JAR Opening Session, it was announced IAAS's relationship with the former "branch campuses" that had been being operated in collaboration with the Department of Agriculture was being phased out; these units would not be part of the Institute by the next year. This placed only the branch campuses at Lamjung and Paklihawa directly under the control of Tribhuvan University and the Institute of Agriculture and Animal Science.

The proposed campus at Baglung (near Pokhara) did not open. In 1982 a special group of students (Horticulture J.T.'s) and IAAS faculty tried to conduct practicals on a branch campus in the Marpha area of Mustang with poor success. The weather was inclement, the cost of living higher than anticipated, and the facilities had not been properly prepared. The Marpha Branch Campus was abandoned for the time, although discussions at IAAS in August of 1984 indicated that there is still some interest in the possibilities of developing a true branch campus there. A Marpha branch campus, or one in a similar high mountain region would probably be a contribution to IAAS since agricultural conditions around the Paklihawa campus are similar to those surrounding IAAS Rampur, and the Lamjung campus, while a bit higher in elevation, is in a zone that could be called a low hill zone.

MUCIA's involvement with the branch campuses has been limited. MUCIA provided assistance with the feasibility study for selecting the locations for the first branch campuses. Dr. O. Donald Meaders in the first MUCIA team made three trips to the Lamjung campus to help develop curriculum and instructional programs and produced a report concerning the type of facilities that would be needed to develop the campus. In January or February of 1977 construction began on the new campus structures. Later advisors, such as Dr. Harry Bittenbender (Plant Science advisor) accompanied members of the IAAS staff on other branch campus site selection trips, visited the Baglung and Marpha areas, and helped make recommendations for developments at those sites. He also helped to establish the horticulture orchards at the Lamjung campus. Members of other MUCIA teams visited both the Lamjung and Paklihawa campuses, but these were usually short fact-finding trips.

Throughout the life of the project, the Lamjung campus continued to provide one year training (JTA level) only. Graduates from there could either go directly into the government service, or as most chose to do, move on to the Paklihawa campus or the Rampur campus to enroll in the second year Certificate program. The branch campuses were staffed from the main campus in Rampur and were administered through that campus, but they received their budgets directly from Tribhuvan University, which added to the difficulties of administering the programs there. Most IAAS staff, at least to date, would much prefer to remain on the central campus at Rampur.

IAAS JOURNAL

One of the goals of the IAAS Project was to assist in the development of a journal which would allow for the regular dissemination of agricultural information, especially the results of research undertaken by the faculty and staff at the Institute. During the life of the project, six issues of the Journal of the Institute for Agriculture and Animal Sciences were published and it may now be considered an on-going journal with an increasing readership throughout Nepal. The first issue, Volume 1, Number 1, appeared in December of 1977 and included 9 articles, all by IAAS faculty members. Since then five more issues, containing a total of 49 articles, have appeared and work was proceeding on another volume (Vol. 5) as the project closed. With each issue has come increasing regularity in meeting time schedules. Format, guidelines, channels of publication, and methods of distribution have been refined and standardized. The journal is no longer just an in-house organ for IAAS

faculty but also attracts submissions from other agricultural researchers throughout Nepal. Likewise, IAAS staff members do not limit their publications to the IAAS Journal but have also placed their articles and research notes in international journals.

A list of the contents of the first 6 issues of the IAAS Journal is in the appendices.

THE IAAS NEWSLETTER; THE RAMPUR ROUND UP

The "News Circular Letter," which later changed its name to "Rampur Round up," began publication in February of 1975 and has had almost continuous publication since that time. Originally a monthly publication, the "Rampur Round Up" evolved into a twice monthly publication and has served a very useful function in keeping staff and students alike apprised of important activities on the campus as well as providing news about individuals on campus, a forum for expressing opinions, and even entertainment in the form of contests and crossword puzzles.

V. CAMPUS DEVELOPMENT, EQUIPMENT AND LIBRARY DEVELOPMENT

Manpower and staff development and program development are critical to the development of an educational institution, but they are not enough. Staff and students require places to live, places to study, laboratories for teaching and research, and literature to keep current in the discipline. USAID, through a companion project for campus development, provided separate funding to build a physical plant: residences; classrooms; hostels; a library; laboratories; and even a canteen. MUCIA assisted in the planning and the MUCIA Team Leader always served on the Campus Development Committee. Through the MUCIA project, equipment to furnish the laboratories and the farms was planned for and acquired. The selection and purchase of journals and books and other materials provided a balanced start to what is now probably the best agricultural library in the country. A limited budget for farm improvements was used to help develop the physical infrastructural development of the Institute.

CAMPUS DEVELOPMENT

When the Institute moved from Kathmandu to the Rampur Campus in July of 1973, there were only a few buildings, previously a USAID-funded Panchayat Training Center, situated on approximately 300 acres about 13 kilometers from the district administrative town of Bharatpur. The dirt road from Bharatpur to Rampur was impassable for wheeled vehicles during the monsoon season.

Cecil D. Smith, USAID-contracted Academic Planner, said in his May 1975 report that the campus consisted of the following main buildings:

- "1. An administrative building with staff offices, a library, some classrooms and laboratories (chemistry, physics and biology).

2. An old gymnasium-auditorium type building with classrooms and business offices.
3. A student hostel with a capacity of about 200 students (four to a room).
4. A dining mess hall and inadequate kitchen or food preparation building.
5. Two 2 bedroom houses used by AID; and two small and two larger trailers (all old) presently being installed. The two smaller ones are apparently intended for short termers or transients. The larger ones are to serve long term people (without children).
6. A house used by the Dean for office, conferences, and sleeping.
7. A Nepalese guest house.
8. Individual and row houses for staff members.
9. Several farm mechanics buildings, a building being used for a chicken brooder house, and one poultry house.
10. One water tank (overhead).
11. A small orchard with three types of fruit trees.
12. Fairly extensive plots adjacent to the main campus building for crop production, demonstration and research" (1975 pages 2-3).

This list presents a fairly accurate picture of conditions at Rampur at the beginning of the project. Point number 8 on staff housing should be expanded, however. At that time (1975) the total housing units available to staff included:

Buildings	Number of families
15 Single family units	15
2 5 family row houses	10
1 7 family row house	7
1 10 family row house	10
4 duplex houses	8
2 small trailers	2
2 large trailers	2

	54

The addition of the livestock farm to IAAS increased these facilities as summarized by Keshaw P. Gimire in the Third Annual Review in 1980 (pages 69-70). His figures also include square footage. Land holdings at that time were about 260 hectares.

"Buildings existing prior to 1978**a. Quarters:**

- for staff (72 families)	41,000 sft (square feet)	
- for students (52 rooms)	25,000 sft	
- Guest House	3,000 sft	
		69,000 sub-total

b. Administrative and Academic

- office of the Dean and Auditorium	6,600 sft	
- main administrative building	12,400 sft	
- Class and Lab-rooms	6,000 sft	
		25,000 sub-total

c. Miscellaneous

- workshop	1,800 sft	
- stores	2,000 sft	
- Poultry shed	2,200 sft	
- Buildings at livestock farm	39,000 sft	
		45,000 sub-total

Total pre-1978 square footage 139,000.

USAID planners, using student and staff projections and projected program development, in June of 1975 authorized the companion PL-480 local currency funded project identified by the same project number as the MUCIA project, to provide \$4,157,000 local currency equivalent for construction of the campus physical plant.

New construction provided by this funding included laboratories, classroom building, three new hostels and renovation of old hostel, several farm buildings, community facilities such as the post office and primary school, a dispensary, a well and water tank, and civil works such as drainage, roads, landscaping, and irrigation canal relocation. Additional staff quarters for 36 families were also completed. A complete, up-to-date listing of campus physical facilities, taken from Soefrank and Odell 1984, appears in the appendices. One additional new building which does not seem to appear on any of the lists available is the canteen which serves meals as well as providing tea, soft drinks, and snacks throughout the day and is the major informal meeting place for staff and students.

The road from Bharatpur to the campus has been upgraded and paved so that it is passable in all seasons, and the physical facilities of the campus are adequate to good. Others have already noted the need for hostel facilities to accommodate female students. In addition some of the classrooms have design errors that need modification to make them more functional. Other than this, a primary need now will be for maintenance of the facilities. The IAAS budget for this will have to be increased and a more efficient maintenance program initiated.

MUCIA CAMPUS DEVELOPMENT ACTIVITIES

The MUCIA/IAAS project contract was not for developing a campus physical plant, but MUCIA advisors regularly sat on the Campus Development Committee and offered advice. In addition, MUCIA contracted with Mr. H. James Miller, a campus planner from the University of Illinois, to serve three times as a short term consultant on campus planning. Mr. Miller had previously contracted with USAID directly several times to help draw up the initial plans for the development of the campus. Mr. Miller is a strong advocate of Master Planning and thinks that IAAS is still in need of a Master Plan. It was his feeling that the first step in the development of a Master Plan for campus growth was to have a clear understanding of the academic programs, the numbers and kinds of student, and the numbers of staff members involved. To this end, MUCIA brought two short term advisors to campus in May and June of 1984 to perform just such an assessment. They reviewed existing programs and plans, addressed what they considered the major problems confronting IAAS, and made suggestions for the further development of IAAS (Soefranko and Odell 1984).

MUCIA also funded some of the physical facilities on campus directly. The first of the 30 approved MUCIA/IAAS research projects was on integrated fish and duck production and involved the construction of four adjoining fish ponds and a duck house on the animal farm. The construction was completed, but, as of the close of the project, no formal research had been conducted on the site. Several other projects were contracted for on behalf of the IAAS and paid for by MUCIA through a farm improvement budget. These projects included:

1. construction of a large biogas plant on the livestock farm;
2. construction of a screened plant protection laboratory;
3. construction of two culverts across canals on the newly constructed road to the livestock farm;
4. construction of a tubewell on the livestock farm;
5. extension of an access road for the new horticulture plots (old airfield);
6. partial funding of a fence for the livestock farm (project terminated);
7. construction of insect cages for entomology;
8. land leveling and bricks for drainage canal;
9. modification to farm building to accommodate pigeons and guinea fowl.

With the exception of the fence (#6), these projects were all completed before the termination of the MUCIA contract.

EQUIPMENT

Throughout the life of the project, MUCIA advisors worked with IAAS staff to develop lists of needed equipment and supplies and to procure and ship them to Rampur. In addition, MUCIA provided a short term advisor, Mr. David Krauss of MSU, who made two visits to Rampur to work with laboratory equipment and maintenance. In addition, Mr. Krauss worked with individuals on equipment repair and helped to complete the equipment lists for the newly developed

Agricultural Communications Services Center (ACSC). He also worked with individuals on the proper use of equipment and established an inventory system to manage equipment on the campus. In working out this inventory system, he compiled a fairly comprehensive inventory of materials that had been purchased by the project. This inventory showed over US\$107,000 worth of equipment purchased through MUCIA. These lists (19 pages) are in Mr. Krauss' end-of-tour reports and include source, method of shipment, and whether items were purchased abroad or locally; they also include items that were purchased by IAAS.

Most of the equipment purchased was for the teaching and research laboratories in animal science, soil science, entomology, and agronomy and test tubes and petrie dishes to microscopes and fume hoods. Audiovisual equipment purchased for the library and the audiovisual unit (the ACSC) included cameras, a video tape unit, tape recorders, a movie projector, slide projectors, a 24 person portable learning center, transformers and stavolizers and projection screens. Two Apple II plus computers with C/PM units were purchased along with a dot matrix printer, a thermal printer, and a letter quality printer. The Computer Center was established in an air conditioned room in the library.

Items purchased specifically for the livestock farm included an animal restraining device, 2 feedmills, a hammer mill, and scales for weighing large and small animals. Two wheeled tool carriers were ordered from India to experiment with new ideas in animal traction on both the livestock farm and the agronomy farm. As of the close of the project, these had not yet arrived.

A small budget was set aside for the Pilot Extension Project, and equipment purchased for that unit included measuring tapes for laying out field demonstrations, racks for the display of literature and bulletins, and bulletin boards to display farm prices and notices of interest to farmers in the PEP area, as well as three bicycles so that workers assigned to the extension office could reach the farms in the area more easily.

A major MUCIA purchase was 2 new diesel Toyotas for the Institute; these arrived just prior to the close of the project.

In addition to the equipment purchased specifically for IAAS, equipment used by MUCIA during the course of the project was turned over to IAAS when the project closed. This included a large amount of office equipment and several vehicles (including three motorcycles). The air conditioning units that had been in the USAID-provided guesthouse trailers were moved to the audiovisual laboratory to protect the sensitive equipment there. The trailers themselves were converted into dormitories for female students. Refrigerators, freezers, and three back-up generators were also turned over to the Institute; two of the generators were turned over by USAID directly.

The basic equipment is in place to operate the teaching and research laboratories but, of course, each department has lists of other equipment it would like should funding become available. One of the biggest problems is maintenance. Most of the faculty are not trained in this area and it would be extremely difficult to hire persons of sufficient skill to take care of the variety of equipment on campus.

LIBRARY

When the project began, the IAAS had a small library located in a room in the old administration building. The roof leaked and the books were seriously damaged by termites. It was an exciting day when the new USAID-funded library was opened. This facility has 19,671 square feet of floor space on two floors; there are 2 large and 5 small rooms. One of the small rooms was set aside as a computer center and the two Apple II+ units there are in constant use. MUCIA brought library specialist John Beecher to Rampur twice to advise on developing library collections, acquisitioning books and developing catalog systems. USAID provided training for one of the librarians. Ms. Jeanne Wood was hired by MUCIA in 1981-82 to work with the IAAS librarian in ordering and cataloging books. It was during this period that the library was developed into a well-functioning unit. Ms. Wood was primarily responsible for this success. MUCIA funded the acquisition of over 30 journals in addition to books. According to the 1984 IAAS Bulletin, the library had more than 18,000 volumes by the time the MUCIA project closed. This number, of course, represents volumes not titles. There is a great deal of duplication since teachers ask that there be at least 10 copies of each course textbook kept in the library. This is necessary as there is no bookstore nearby nor could many students afford to purchase the texts even if they were available. One notable problem that occurred at the termination of the project was the continuation of journal subscriptions. Since MUCIA was not permitted by contract to expend funds that would be used after the project termination date, subscriptions could not be renewed to journals if issues were to be received after the project termination date. IAAS did not have the budget to maintain these subscriptions. The IAAS II project may be able to make back orders of missed issues and renew subscriptions. This would be, however, only a temporary measure, and the IAAS should try to develop a budget for library resources.

VI. CONCLUSIONS AND BEGINNINGS

The IAAS has come a long way since 1973 when trucks transported staff, students, and equipment over the Raj Path from Kathmandu to Rampur. From just a physical point of view, what was a small Panchayat Training Center is now a university-level campus with functional facilities for administrators, a library, dormitories, classrooms, and laboratories. Immediate needs call for more staff housing, a women's dormitory and improvement of the farms.

A "critical mass" of professional talent is present in the form of a young, well-trained faculty, a dedicated Dean, and an increasingly competent administration. The need is for increased administrative capability to support the growing Institute programs and for faculty concentration on improving the quality of the existing programs.

The three main divisions of Plant Science, Animal Science, and Rural Development have expanded into 11 departments and there is a great push on the part of the faculty to strengthen departments and place more decisions at the departmental level.

The curricula for the three programs for B.Sc., I.Sc., and J.T.A. are set and elective courses have been developed. There is an expressed need for a B.Sc. in Animal Science and this program is being designed. But no curriculum should be set in stone and curriculum revisions will continue.

The research program is developing as better facilities are available, as more trained staff have returned to the campus, and as staff gain more recognition for their research efforts. More staff members are seeking and receiving external funding for research and more are participating in research projects and consultancies for governmental and other agencies. This reflects a growing regard for IAAS and its staff.

The return of staff trained in extension and the reorganization of the extension program have given new impetus to work in this area. The support of the Dean, a man with many years of experience in extension work, has been crucial. The need now is to encourage stronger commitment to the Institute's extension/service role on the part of all departments.

The increasing functioning of committees is an index of the growing maturity of the Institute. The Research Committee, the Extension Committee, and the Curriculum Committee, for example, are largely responsible for the progress in these areas. The committee system involves faculty in administration and decentralizes decision-making. This is a far cry from the days when every decision had to be referred to the Dean.

MUCIA/USAID support has been extremely significant in all of these developments from providing equipment, library books, and materials to participant training. Less tangible and not easily quantified but crucial nevertheless has been the support of the MUCIA advisors in program development in administrative affairs, teaching, research, and extension/service. From one-to-one daily interactions with IAAS colleagues, to serving on committees, to giving workshops and seminars, advisors have been involved in almost every aspect of IAAS development. Over the life of the project, the role of advisors changed. In the early years, they taught courses, prepared organizational charts, and prepared curricula. As the Institute developed, the advisors' role became more exactly that: to advise both individuals and committees where advice was sought and to facilitate, where possible, the tasks of the Institute and its staff.

APPENDIX I

MUCIA Advisors

1. Long-Term Advisors
2. Short-Term Advisors

LONG TERM ADVISORS

<u>Name</u>	<u>Field</u>	<u>University</u>	<u>Dates</u>
Meaders, O. Donald	Agricultural Education	Michigan State University	February 1, 1976 - April 20, 1977
Maddy, Glenn	Agricultural Extension/ Education Advisor	Ohio State University	January 20, 1976 - March 31, 1977
Axinn, George H.	Team Leader	Michigan State University	June 21, 1976 - July 20, 1978
Axinn, Nancy W.	Extension/Adult/Non- Formal Education	Michigan State University	June 21, 1976 - July 20, 1978
Bird, Herbert R.	Animal Science Advisor	University of Wisconsin	January 1, 1978 - April 23, 1978
Ray, Rex E.	Team Leader	Michigan State University	July 20, 1978 - September 30, 1980
Bittenbender, H.C.	Plant Science	Michigan State University	August 18, 1978 - December 31, 1980
Williams, Jesse	Animal Science	University of Minnesota	May 1, 1979 - May 31, 1981
Kaplan, Paul F.	Rural Development	Michigan State University	August 10, 1979 - September 9, 1981
Wood, Garland	Team Leader	Michigan State University	December 20, 1980 - February 2, 1983
Foth, Henry	Plant Science	Michigan State University	December 30, 1980 - July 31, 1982
Combs, Weslie	Animal Science	Michigan State University	September 23, 1982 - September 30, 1984
Thorne, Marlowe	Team Leader	University of Illinois	October 15, 1982 - June 30, 1984
Whittier, Herbert	Rural Sociology Team Leader	Michigan State University	November 22, 1982 - September 30, 1984 June 1, 1984 - September 30, 1984

SHORT TERM ADVISORS

<u>Name</u>	<u>Field</u>	<u>University</u>	<u>Dates</u>
Miller, H. James	Campus Planning	University of Illinois at Urbana-Champaign	June 24, 1976 - July 10, 1976 February 1, 1978 - February 25, 1978 September 29, 1983 - October 8, 1983
Libby, John L.	Entomology	University of Wisconsin-Madison	June 4, 1977 - July 6, 1977 April 7, 1978 - May 8, 1978
Shulte, Emmett E.	Soil Science	University of Wisconsin-Madison	June 4, 1977 - July 6, 1977 February 12, 1978 - March 17, 1978
Nelson, Wallace W.	Farm Management	University of Minnesota	September 16, 1977 - October 18, 1977
Ray, Rex	Agric. Education	Michigan State University	April 27, 1978 - May 6, 1978 May 24, 1978 - June 8, 1978
Scherer, M. Don	Student Records	Indiana University	May 9, 1978 - June 13, 1978
Mark, Lynne Dell	Administrative	Michigan State University	June 8, 1978 - August 31, 1978
Deans, Robert J.	Animal Science	Michigan State University	June 10, 1978 - July 15, 1978
Miller, Kenneth P.	Animal Science	University of Minnesota	October 11, 1978 - February 4, 1979
Coppel, Harry C.	Entomology	University of Wisconsin-Madison	March 19, 1979 - April 18, 1979
Beecher, John W.	Agric. Librarian	University of Illinois University of Minnesota	May 3, 1979 - June 7, 1979 November 10, 1983 - December 3, 1983
Chapman, R. Keith	Entomology	University of Wisconsin-Madison	August 11, 1979 - August 20, 1983
Axinn, George H.	Rural Development	Michigan State University	March 13, 1980 - March 30, 1980 August 10, 1980 - September 14, 1980

SHORT TERM ADVISORS

<u>Name</u>	<u>Field</u>	<u>University</u>	<u>Dates</u>
Wood, Garland	Rural Development	Michigan State University	August 13, 1980 - August 23, 1980
Foth, Henry	Plant Science	Michigan State University	September 5, 1980 - September 15, 1980
Schwarzweiler, Harry	Extension/ Rural Sociology	Michigan State University	March 15, 1981 - April 3, 1981
Combs, Weslie	Animal Science	Michigan State University	January 4, 1982 - March 5, 1982
Wilson, Kim	Work Plan Development	Michigan State University	June 16, 1982 - June 30, 1982
Sofranko, Andrew	Work Plan Development/ Academic Planning	University of Illinois	June 16, 1982 - June 30, 1982 May 3, 1984 - June 8, 1984
Thorne, Marlowe	Plant Science	University of Illinois	July 7, 1982 - July 28, 1982
Whittier, Herbert	Rural Sociology	Michigan State University	September 27, 1982 - October 16, 1982
Thompson, Maxine	Horticulture	Oregon State University	April 16, 1982 - April 21, 1983
Krauss, David	Laboratory Equipment Repair	Michigan State University	July 7, 1983 - September 9, 1983 July 27, 1984 - August 30, 1984
Cress, Charles	Agronomy Statistics	Michigan State University	July 25, 1983 - September 19, 1983
Middleton, Russell	Rural Sociology	University of Wisconsin	July 16, 1983 - July 30, 1983
Wamhoff, Carroll	Teacher Education	Michigan State University	March 7, 1984 - March 28, 1984
Cooper, Colleen	Teacher Education	Michigan State University	March 18, 1984 - April 11, 1984
Odell, Russell	Academic Planning	University of Illinois	May 9, 1984 - June 12, 1984
Doane, Charles F.	Administration	Michigan State University	May 16, 1984 - June 11, 1984

APPENDIX II

Manpower and Staff Development Programs

1. MUCIA/IAAS Participant Degree Programs
2. USAID Direct Participant Degree Programs
3. Other Sponsorship Degree Programs
4. Formal Training: on campus
5. Formal Training: off campus
6. MUCIA Funded Study Tours
7. MUCIA supported Professional Development

MUCIA/IAAS Participant Degree Programs

<u>PARTICIPANT</u>	<u>UNIVERSITY</u>	<u>FIELD</u>	<u>DEGREE</u>	<u>ARRIVAL DATE</u>	<u>DEPARTURE DATE</u>
Sribindu Bajracharya	Michigan State University	Agricultural Economics	M.S.	12/19/76	12/20/78
Nanda Joshi	The Ohio State University	Poultry Science	M.S.	12/19/76	02/22/79
Satya Tiwary	The Ohio State University	Extension Education	M.S.	03/12/77	03/22/79
Pradeep Tulachan	University of Illinois	Agricultural Economics	M.S.	07/07/77	08/31/79
Narayan Kunwar	University of Wisconsin	Agricultural Journalism	M.S.	08/14/77	09/20/79
Chandra Man Shrestha	University of Illinois	Dairy Science	M.S.	08/14/77	08/08/79
Krishna Sharma	Michigan State University	Crop Science	M.S.	09/14/77	09/11/79
Padam Sharma	University of Minnesota	Soil Science	M.S.	09/14/77	09/25/80
Tara Nepal	Michigan State University	Crop Science	M.S.	12/18/77	03/20/80
Rishi Adhikari	Michigan State University	Horticulture	M.S.	09/05/78	08/20/80
Bhola Pokharel	The Ohio State University	Agricultural Economics	M.S.	09/05/78	01/13/81
Kailash Pyakuryal	Michigan State University	Rural Development	Ph.D.	09/05/78	08/31/82
Maheshwar Sapkota	Michigan State University	Animal Science	M.S.	09/05/78	01/09/81
Krishna Shrestha	Michigan State University	Administration (non-degree)		09/05/78	05/19/79
Tej Bahadur K.C.	University of Wisconsin	Soil Science	Ph.D.	06/09/79	05/15/82
Uma Gupta	University of Illinois	Agronomy	M.S.	08/12/79	01/24/82
Fanindra Neupane	University of Wisconsin	Entomology	Ph.D.	08/17/79	06/25/82
Jaya Joshi	University of Wisconsin	Soil Science	M.S.	08/18/79	09/01/81

(continued)

<u>PARTICIPANT</u>	<u>UNIVERSITY</u>	<u>FIELD</u>	<u>DEGREE</u>	<u>ARRIVAL DATE</u>	<u>DEPARTURE DATE</u>
Shanta Man Shakya	The Ohio State University	Horticulture	M.S.	09/05/79	04/14/82
Bhairav Khakural	Michigan State University	Soil Science	M.S.	09/12/79	09/01/81
Ram Chandra Sharma	The Ohio State University	Agronomy	M.S.	12/17/79	04/24/82
Lakshmi Subedi	University of the Philippines LB	Agronomy	M.S.	06/01/80	
Murari Suvedi	University of the Philippines LB	Extension Education	M.S.	06/01/80	05/20/82
Nav Raj K.C.	University of Minnesota Technical College	Administration (non-degree)		07/21/80	06/25/81
Gopi Upreti	University of Hawaii	Horticulture	M.S.	08/12/80	02/10/83
Nagendra Shah	South Dakota State University	Dairy Science	M.S.	08/18/80	09/23/82
Resham Thapa	Michigan State University	Entomology	M.S.	09/08/80	12/27/82
Dilli Ram Baral	The Ohio State University	Horticulture	M.S.	03/19/81	05/22/83
Bishnu Bhandari	University of Wisconsin	Rural Sociology	Ph.D.	08/11/81	
Bal Krishna Sharma	South Dakota State University	Dairy Management	M.S.	08/11/81	09/30/83
Ganesh Adhikary	Michigan State University	Agricultural Economics	Ph.D.	09/09/81	
Tika Adhikari	University of the Philippines LB	Plant Pathology	M.S.	11/18/81	04/ /84
Ganesh Dahal	University of the Philippines LB	Plant Pathology	M.S.	11/18/81	05/ /84
Durga Gautman	University of the Philippines LB	Post Harvest Physiology	M.S.	11/18/81	05/ /84
Mohan Karal	University of the Philippines LB	Animal Science	M.S.	11/18/81	04/ /84

(continued)

<u>PARTICIPANT</u>	<u>UNIVERSITY</u>	<u>FIELD</u>	<u>DEGREE</u>	<u>ARRIVAL DATE</u>	<u>DEPARTURE DATE</u>
Shyam Sah	University of the Philippines LB	Animal Science	M.S.	11/18/81	05/ /84
Jagadish Timsina	University of the Philippines LB	Agronomy	M.S.	11/18/81	04/ /84
Gyan Shrestha	Oregon State University	Horticulture	Ph.D.	08/18/82	
Nanda Joshi	Michigan State University	Animal Science	Ph.D.	08/30/82	
B.B. Basnet	Asian Institute of Agricultural Technology	Agricultural Engineering	M.S.	01/01/83	12/ /84

USAID Direct Participant Degree Programs

<u>Name</u>	<u>Country of Training</u>	<u>Subject</u>	<u>Degree</u>	<u>Date Returned To IAAS</u>
Tiwari, Krishna Raj	India	Animal Science	M.Sc.	November 1976
Manandhar, Lalita	USA	Library Science	Training	September 1977
Shrestha, Anirudra	USA	Agri. Education	M.S.	September 1977
Bhandary, Bishnu Bahadur	USA	Agri. Education	M.S.	October 1977
Chaudhary, Laxmi Narayan	India	Library Science	B. Lib.	June 1978
Sah, Sahadev	India	Animal Science	M.Sc.	December 1978
Koirala, Ramchandra	India	Horticulture	Training	April 1979
Shrestha, Khadga Bahadur	India	Agri. Engineering	M. Tech	May 1979
Shrestha, Gyan Kumar	India	Horticulture	M. Sc.	August 1979
Dhakal, Durga Datta	India	Horticulture	M. Sc.	September 1979
Dangol, Badri, Bahadur	India	Agri. Extension	M. Sc.	October 1979
Shivakoti, Ganesh Pd.	India	Agri. Economics	M. Sc.	October 1979
Sah, Moti Lal Prasad	India	Agronomy	Training	February 1980
Shrestha, Sundar Man	India	Pathology	M. Sc.	July 1980
Gurung, Sant Bahadur	India	Agri. Botany	M. Sc.	September 1980
Sah, Srichandra	India	Soil Science	M. Sc.	January 1981
Mandal, Chandra Kishor	India	Entomology	M. Sc.	1982
Nepali, Dainik Bahadur	India	Animal Husbandry	M. Sc.	1982
Tiwari, Sudarsan	India	Animal Husbandry	Training	1982
Yadav, Jagat Lal	India	Animal Science	M. Sc.	1982
Yadav, Dev Nath	India	Agronomy	M. Sc.	1982
Chaudhary, Narendra Kumar	India	Agronomy	M. Sc.	1984
Malli, Thakan	India	Agri. Statistics	Ph.D.	est 1984
Mishra, Nand Kumar	India	Agronomy	Ph.D.	est 1985
Shrestha, Anand Prasad	India	Agri. Chemistry	Ph.D.	est 1985

Other Sponsorship Degree Programs

IAAS Staff in Overseas Ph.D. Programs under other funding

Name	Field	University
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1. B. P. Sharma	Agronomy	South Dakota State University
2. T. P. Nepal	Agronomy	Iowa State
3. Pradeep Tulachan	Ag. Economics	Cornell
4. Laxmi Suvedi	Agronomy	UPLB
5. Nagendra Shah	Dairy Science	University of Alberta
6. K. T. Augusty	Fisheries	McGill University
7. K. P. Sharma	Animal Sci.	University of Maryland
8. C. M. Shrestha	Ag. Economics	University of Kentucky
9. Ram Sharma	Agronomy	Oklahoma State University

FORMAL TRAINING: ON CAMPUS

Statistical Methods and Experimental Design

July - September 1983

Three levels of participation were recognized. The three groups total 38.

1. Satisfactory completion of course--These staff completed the requirements of the course and received a certificate of completion.

Satisfactory Completion

- | | |
|--------------------------|------------------------|
| 1. Rishi R. Adhikari | 11. Bhadra B. Panta |
| 2. Dilli Baral | 12. Rabi Poudel |
| 3. Ishwari Prasad Dhakal | 13. Sahdeo Sah |
| 4. Uma S. Gupta | 14. Nagendra P. Shah |
| 5. Jaya R. Joshi | 15. Shanta M. Shakya |
| 6. Bhairav R. Khakural | 16. Maheshwar Sapkota |
| 7. Keshav Koirala | 17. Padam P. Sharma |
| 8. Toya N. Mishra | 18. Prem Nath Tripathi |
| 9. Chandra K. Nepal | 19. Gopal P. Shivakoti |
| 10. Surya P. Pandey | 20. Gopi Upreti |

2. Participation in course--These staff regularly attended lectures and completed some of the assignments and received a certificate of participation.

Participation

- | | |
|----------------------|----------------------|
| 1. Krishna Adhikari | 4. Vishnu Sharma |
| 2. Narsingh P. Gupta | 5. Kaushal K. Lal |
| 3. Chandra K. Mandal | 6. Shree Chandra Sah |

3. Attendance--These staff attended one or more lectures and received no formal recognition.

Attended one or more lectures

- | | |
|------------------------|-------------------------|
| 1. M. H. Khan | 7. Fanindra Thapa |
| 2. Ram B. Kshetri | 8. Krishna R. Tiwari |
| 3. Dainik B. Nepali | 9. Deonath Yadav |
| 4. Ganesh P. Shivakoti | 10. Fanindra Neupane |
| 5. Sunder M. Shrestha | 11. Bhola Pokharel |
| 6. Murari P. Suvedi | 12. T. B. Khatri-Chetri |

Three levels of participation were recognized. The total number of participants was 44.

Satisfactory Completion of course requirements (participated in 75% or more of the sessions)

Dr. Fanindra Neupane	Mr. Dev N. Yadav
Mr. Resham B. Thapa	Dr. Kailash N. Pyakuryal
Mr. Shiva P. Singh	Mr. Narayan Kunwar
Dr. Suresh C. Rai	Mr. Murari Subedi
Mr. Amar N. Shukla	Mr. Narsingh P. Gupta
Mr. Rishi R. Adhikari	Mr. Saha D. Sah
Mr. Gopi Upreti	Mr. Dainik B. Nepali
Mr. Shanta M. Shakya	Mr. Bal K. Sharma
Mr. Dilli R. Baral	Mr. Iswori P. Dhakal
Mr. Ram C. Koirala	Mr. Dilip K. Jha
Mr. Uma C. Gupta	Mr. Shree Chandra Sah
Mr. Bhadra B. Panta	Mr. Padam P. Sharma
Mr. Narendra K. Chaudhari	Mr. Bhairav R. Khakural
Mr. Moti L. Prasad	Mr. Jagadamba P. Chaudhari
Mr. Prem N. Tripathi	Mr. Rameswore Pandey
Mr. Mithilesh K. Sahaya	Mrs. Rama Shivakoti
Mr. Gopal Pradhan	Mr. Shiva Gautam
Mr. Ganesh P. Shivakoti	Mr. Munna S. Kalhans
Mr. Bholi N. Pokharel	Mr. Shanta B. Gurung
Mr. Pradeep M. Tulachan	Mr. Makabul H. Khan
Mr. Jhanka P. Sharma	Mr. Arjun K. Srivastava
Mr. Sudarsan Tiwari	

Participation in 50%-75% of the class sessions

Mr. Krishna R. Tiwari

Systematic Managerial Analysis and Decision-Making Course - 6-10 August 1984

1. Uma Gupta	Agronomy
2. Ram Chandra Koirala	Farm Manager (Horticulture)
3. Dainik Bahadur Nepali	Farm Manager (Animal Science)
4. Ganesh Shivakoti	Agricultural Economics
5. Moti Lal Prasad	Farm Manager (Agronomy)
6. Maheshwar Sapkota	Animal Science
7. Badriu B. S. Dongol	Rural Sociology & Extension
8. Kailash N. Pyakuryal	Asst. Dean (Admin.) & Rural Soc.
9. Santa B. Gurung	Ag. Botany
10. Weslie Combs	MUCIA
11. Gopi Upreti	Ag. Statistics and Horticulture
12. Narendar Kemar Chandhary	Hostel Warden
13. Muari Suvedi	Extension Coordinator
14. Chandra Kishor Mandal	Plant Protection
15. Narayan Kunwar	Assistant Dean (Academic)
16. Narsingh Prasad Gupta	Rural Sociology & Extension
17. Durga D. Dhakal	Horticulture
18. Satya Tiwari	Campus Chief (Lamjung)
19. Padam P. Sharma	Soil Science

Course on Management of Administrative Aspects of Higher Education in Agriculture - 11 June - 13 August 1984

1. Raj Khatri Chhetri	IAAS Deputy Administrator
2. Pushpa Bimal Bhandari	IASS Assistant Administrator
3. Devendra Devkota	IAAS Account Officer
4. Dinesh Raj Bista	IAAS Assistant Administrator
5. Bishnu Hari Devkota	IAAS Assistant Librarian
6. Khada Nanda Sharma	IAAS Assistant Administrative Officer
7. Ganga Lal Shrestha	IAAS Deputy Administrative Officer
8. Buddhi Lal Bhandari	IAAS Accounts Controller

FORMAL TRAINING: OFF CAMPUS

1. MUCIA-Funded Non-degree Programs

Name	USDA Course No.	University	Departure Date
1. Srichandra Sah	TC 120-5	North Carolina State Univ.	June, 1983
2. Krishna R. Tiwari	TC 140-28	Colorado State University	June, 1983
3. Dainik B. Nepali	TC 140-28	Colorado State University	June, 1983
4. Chandra K. Mandal	TC 130-8	Purdue University	June, 1983
5. Durga Dhakal	TC 130-11	Rutgers University	July, 1983
6. Narayan Kunwar	TC 110-3	Iowa State University	July, 1983
7. Murari Subedi	TC 110-5	University of Wisconsin	Sept., 1983
8. B.B. Singh Dongol	TC 110-5	University of Wisconsin	Sept., 1983
9. Deonath Yadav	TC 150-7	Cornell University	Sept., 1983
10. Padam P. Sharma	Computer Training	Michigan State University	Sept., 1983

Short course on wheeled tool-carriers at the International Center for Research in the Semi-Arid Tropics of Hyderabad, India, May 1983. The following faculty members attended:

M.L. Prasad	Agronomy Farm Manager
R. Koirala	Horticulture Farm Manager
S. Tiwari	Animal Science

2. Non-MUCIA Funded Participants in Non-Degree Programs

1. Pradeep Tulachan - Participated in ADC sponsored training course on Socio-economic Aspects of Livestock Production.
2. Ganesh Shivakoti - Rural Development Training, Netherlands. Funded by the Netherlands Government. August 1982 - June 1983.
3. Santa B. Gurung - Extension Education. The Netherlands. September 1982 - August 1983.
4. Resham Thapa (FAO) for 6 months training in sericulture in China.
5. Pradeep Tulachan (IDRC) to a seminar on "Socioeconomic Aspects of Livestock" in Singapore.
6. Mr. Rishi Adhikary (Chairman of Horticulture) received AURDC funding for 6 months training (July 15, 1984 - January 15, 1985) at the Asia Vegetable Research and Development Center at Kasetsart University in Bangkok, Thailand. The training is on the topic of "Heat and Flood Tolerance Physiology of Tomatoes."

MUCIA-FUNDED STUDY TOURS

1. India study tour 10-24 October 1981

- | | |
|-----------------------------|--------------------------------|
| 1. Dr. Garland Wood | MUCIA team leader |
| 2. Mr. Nanda P. Toshi | Assistant Dean, Animal Science |
| 3. Mr. Rishi Raj Adhikari | Horticulture |
| 4. Mr. Sundar Man Shrosth | Plant Pathology |
| 5. Mr. Tara P. Nepal | Agronomy |
| 6. Mr. Badri Bahadur Dangol | Agri. Extension |
| 7. Mr. Ram Bahadur Chhetri | Physics |

2. Study/Observational Tour to Thailand, Indonesia, Singapore. June 1-29, 1983. Summary report is in Rural Development Advisor's report. The following IAAS faculty members attended:

Dr. Herbert L. Whittier: Rural Development Advisor
 Mr. B.P. Sinha: Dean IAAS
 Dr. K.N. Pyakuryal: Assistant Dean; Rural Sociology
 Mr. S.M. Shakya: Lecturer; Horticulture
 Mr. B.N. Khakural: Lecturer; Soil Science
 Mr. K.T. Augushty: Lecturer; Animal Science

3. Study tour to Greece, Italy, and Cyprus. June 3-25, 1983. Summary is in Animal Science Advisor's report. The following IAAS faculty members attended:

Dr. Weslie Combs: MUCIA Animal Science Advisor
 Mr. B. Pokharel: Lecturer; Agricultural Economics
 Mr. M. Sapkota: Lecturer; Animal Science
 Mr. B.B. Pant: Lecturer; Agronomy
 Mr. N. Sah: Lecturer; Animal Science
 Mr. J.L. Yadav: Lecturer; Animal Science

4. Study tour to India June 17 through June 30, 1984. Ten people, including the IAAS Dean, the RD Advisor, and eight teaching faculty, participated in the tour. The tour participants were:

- | | |
|---------------------------------|-----------------------------------|
| 1. Mr. Bindeshwori Prasad Sinha | Dean, IAAS |
| 2. Dr. Herbert L. Whittier | MUCIA, Chief of Party; RD Advisor |
| 3. Dr. Tej Bahadur K. C. | Professor, Soil Science |
| 4. Dr. Fanindra Neupane | Professor, Entomology |
| 5. Mr. Satya Narayan Tiwari | Lecturer, Extension |
| 6. Mr. Teg Bahadur Nepali | Lecturer, Botany |
| 7. Mr. Rishi Adhikary | Lecturer, Horticulture |
| 8. Mr. Uma Shankar Gupta | Lecturer, Agronomy |
| 9. Mr. Ishwari Prasad Dhakal | Lecturer, Animal Science |
| 10. Mr. Mukbal Hussain Khan | Assistant Lecturer, Botany |

MUCIA-Supported Professional Development Activities

- D. D. Dhakal -- Visits to Michigan State University and Ohio State University sponsored by MUCIA following attendance at workshop in Canada under other sponsorship. 1982
- Bhola Pokarel -- Attendance at International Agricultural Economics Conference in Jakarta, Indonesia. 1982
- Jaya Joshi -- Attendance at Soil Science Conference. Israel. 1984
- Fanindra Neupane -- Visit to University of Wisconsin following attendance at workshop in North Carolina under other sponsorship. 1983
- Ganesh Shivakoti -- Visits to Michigan State University and the University of Wisconsin following study course in the Netherlands under other sponsorship. 1983
- Rishi Adhikari -- Attendance at Chemrawn II Conference in Manila, The Philippines. 1982
- Narayan Kunwar -- Visits to Philippines, Malaysia, Thailand, and Korea to observe systems of agricultural communications. 1982

APPENDIX III

RESEARCH AT IAAS TO 1984

1. Projects listed in the 1976-1977 Annual Report
2. IAAS Research Program 2036-2037 (1979-1980)
3. IAAS Research Projects Funded by MUCIA/USAID Jan. 1982-Sept. 1984

Research projects listed in the 1976-1977 Annual Report

Plant Science Division Research

1. PS Agro-1 Evaluation of the response of rape to zinc, boron and sulphur.
2. PS Agro-2 Weed survey and evaluation of losses caused by weed in Rabi crops in Chitwan.
3. PS Agro-3 Response of Potato to NPK fertilizer.
4. PS Hort-2 Selection of tomato varieties for round the year harvest in Chitwan District.
5. PS Ento-1 Effect of time of sowing and insecticide application on mustard aphid.

Animal Science Division Research

1. Evaluation of high lysine maize as a component of broiler feed in comparison to common low lysine maize.

Rural Development Division Research

1. Follow-up study of former IAAS students (A. Shrestha).
2. Livestock contribution in Farmers' Income (Ganesh Shivakoti).

IAAS Research Program 2036-2037 (1979-1980)

<u>Plant Science</u>	<u>Title</u>	<u>Leader</u>	<u>Page</u>
1. PS/Agro-17	Time of Planting Wheat with Level of NPK and Seed Rate	N.K. Mishra	2
2. PS/Agro-18	Effect of graded level of N and P and Methods of Zinc application on yield of Rain-fed Flooded Rice	N.K. Mishra	3
3. PS/Agro-19	Effect of Genotypic Variation and method of planting on Yield Components and Yield of Chickpea (<u>Cicer arientinum</u>)	K.P. Sharma	5
4. PS/Agro-20	Performance of varieties of Lentil under two planting methods	K.P. Sharma	7
5. PS/Agro-21	Wheat Variety Trial with different Cultural Practices	H.C. Bittenbender	9
6. PS/Agro-22	1979 International Rice Observation Nursery (IRON)	H.C. Bittenbender	12
7. PS/Agro-23	Effect of Zinc Oxide on a double Cropping Rice Variety Trial	Kazuhiko Onodera	14
8. PS/Agro-24	Compost Evaluation Experiment on Wheat	H.C. Bittenbender	17
9. PS/Hort-6	Young Guava Orchard Management	G.K. Shrestha	19
10. PS/Hort-7	Effect of Spacing Graded Levels of N on Yield and Yield Attributes of Okra Var. Pusa Sawani during Summer Season	G.K. Shrestha	21
11. PS/Hort-8	Effect of Fertilizers on Growth and Yield of Two Genotypes of Tapioca (<u>Manihot esculenta</u>)	G.K. Shrestha	23
12. PS/Hort-9	Effect of Planting Methods Earthing up and number of Sprouts on Yield of Unirrigated Potato	G.K. Shrestha	25
13. PS/Hort-10	Effect of Growth Regulators and Seedling Age on Yield of Transplanted Potato Var. Local Red	G.K. Shrestha	27

<u>Plant Science</u>	<u>Title</u>	<u>Leader</u>	<u>Page</u>
14. PS/Hort-11	Evaluation of Plant Growth Regulators for Inducing Early Following in Pineapple	D.D. Dhakal	29
15. PS/Hort-12	Effect of Varying Concentration of Ethrel on Fruit Splitting of Litchi	G.K. Shrestha	31
16. PS/Hort-13	Effect of Varying Concentrations of Ethrel with or without 2% Urea on Induction of Flowering in Kew Pineapple	G.K. Shrestha	33
17. PS/Soil-11	NP Zn Fertilizer Trial on non-irrigated wheat	Tej Bdr. K.C.	35
18. PS/Soil-12	Soil Heterogenity and Plot Size Estimation	H.C. Bittenbender	36
19. PS/Pl.Path-2	Evaluation of Fungicides for the Control of Powdery Mildew of Peas	L.N. Bhardwaj	38
20. PS/Pl.Path-3	A Study of Vegetable Disease Problems of Chitwan Valley of Nepal-A Survey	L.N. Bhardwaj	40
<u>Animal Science</u>			
21. AS/Forage-1	Evaluation of Maize Varieties for Green Fodder or Fodder-grain Production	K.R. Tiwari	42
<u>Rural Development</u>			
22. RD/Ag.Econ-5	Marketing of Rice in Nepal-A case study	Pradeep Tulachan	44
23. RD/Ag.Econ-6	Estimates of the demand for Rice, Maize and Wheat in Nepal-An emperical Analysis	Pradeep Tulachan	46
24. RD/Ag.Econ-7	Marketing of Maize and Wheat in Nepal-A case study	Ganesh Shivakoti	48
25. RD/Ag.Ext-3	Radio Agricultural Program-A case study	N. Kunwar	51

IAAS Research Projects Funded by MUCIA/USAID, January 1982 - September 1984

Project Number	Project Title	Leader	Month Approved	Funds, Rs Allocated	Status, Sept. 1984	
					Activity	Reports
1.	Duck Cum Fish Culture	K. T. Augusthy	Jan. '82	289,889	Inactive	Construction complete no data
2.	Soybean Research and Extension in Chitwan	K. P. Sharma	Feb. '82	84,055	Completed	Manuscript
3.	Farming Systems: A Case Study of Shardanagar Panchayat	P. M. Tulachan	Feb. '82	72,942	Completed	Final Report
4.	Mapping and Characterization of Major Soils of IAAS Farm	B. R. Khakural	Jan. '82	18,900	Completed	Final Report
5.	Evaluation of B.Sc. (Ag.) Program	B. N. Pokharel	Feb. '82	36,950	Completed	Final Report
6.	Effect of Date of Sowing and Nitrogen Level on the Incidence of Rice Blast and Leaf Spot at Nursery Stage	S. M. Shrestha	Apr. '82	5,745	Completed	Final Report
7.	Effect of Certain Chemical (Applied Both as Seed Dressings and Foliar Sprays) on Seedling Health, Blast and Brown Spot Diseases of Paddy	L. N. Bhardwaj	Apr. '82	11,929	Completed	Progress Report
8.	Chemical Control of Root-Knot Nematodes on Okra and Eggplant	L. N. Bhardwaj	Apr. '82	3,390	Completed	Progress Report
9.	Survey and Identification of Plant Parasitic Nematodes in Chitwan	M. H. Khan	Apr. '82	10,846	Completed	Final Report

(continued on next page)

IAAS Research Projects Funded by MUCIA/USAID, January 1982 - September 1984

Project Number	Project Title	Leader	Month Approved	Funds, Rs Allocated	Status, Sept. 1984	
					Activity	Reports
10.	Year-Round Production of Vegetables at Rampur	R. R. Adhikari	Apr. '82	58,161	Completed	Final Report
11.	Radio and Other Sources of Information to the Farmers in Chitwan	N. Kunwar	May '82	31,268	Completed	Final Report
12.	Effect of Levels of Rice Polishing on the Performance of Growing and Finishings Pigs	S. D. Sah	Apr. '82	34,500	Terminated	Final Report
13.	Different Methods of Storing Perishable Fruits and Vegetables	R. R. Adhikari	May '82	2,090	Completed	Final Report
14.	Chemical Control of Root-Knot Late Blight Diseases Complex on Tomato; Powdery Mildew on Pea; and Alternaria Leaf Spot on Mustard	S. M. Shrestha	Sep. '82	19,309	Completed	Progress Report
15.	Fungicide Control Trial Against Stem-Gall of Coriander Under (i) in vivo Condition and (ii) Field Condition	L. N. Bhardwaj	Sep. '82	5,698	Completed	Delinquent Final Report Due
16.	Effect of Nitrogen and Sulfur Fertilizers on Yield and Oil Content of Mustard	S. C. Sah	Oct. '82	32,961	Completed	Progress Report Final Report Due

(continued on next page)

IAAS Research Projects Funded by MUCIA/USAID, January 1982 - September 1984

Project Number	Project Title	Leader	Month Approved	Funds, Rs Allocated	Status, Sept. 1984	
					Activity	Reports
17.	Biological Performance and Economic Effects of Raw Mustard Cake as Compared to Raw Ground Soybean With Swine	M. Sapkota	Oct. '82	62,466	Completed	Final Report
18.	Incidence of Liver-fluke Infection in Dairy Animals of Livestock Farm	I. P. Dhakal	Oct. '82	6,402	Completed	In press
19.	Contribution of Dew on Winter Wheat at Rampur	P. P. Sharma	Oct. '82	22,660	Completed	Final Report
20.	Leucaena--I: Fodder Yield of Different Varieties of Leucaena leucocephala in Chitwan	K. R. Tiwari	Mar. '83	68,290	Completed	Final Report
21.	Variation of Certain Milk Constituents of Maryana Cows and Murrah Buffaloes Under Agro-Climatic Conditions of Chitwan	N. Sah	Mar. '83	27,140	Completed	Final Report
22.	Agronomic Studies of Moong (Vigna radiata) Sown at Different Dates and Row Spacing Population	D. N. Yadav	Mar. '83	20,742	Completed	Final Report
23.	Collection, Maintenance, and Screening of Germplasm of Tomatoes for Disease Resistance in Nepal	G. Upreti	Sep. '83	39,589	Active	Progress

(continued on next page)

IAAS Research Projects Funded by MUCIA/USAID, January 1982 - September 1984

Project Number	Project Title	Leader	Month Approved	Funds, Rs Allocated	Status, Sept. 1984	
					Activity	Reports
24.	Bionomics of Lepidopterous Stem Borers on Rice and Maize	F. P. Neupane	Mar. '84	13,904	Beginning	Progress Report
25.	Conservation Tillage Research on Summer Maize at Rampur	P. P. Sharma	May '84	29,216	Beginning	Progress Report
26.	Fruit Cultivation in Chitwan-Problems and Prospects	D. D. Dhakal	May '84	20,350	Beginning	Progress Report
27.	Off-Season Radish Crop Production in Chitwan	S. M. Shakya	May '84	14,630	Beginning	Progress Report
28.	Physiological Studies on Grain Loss in Rice	S. B. Gurung	May '84	20,680	Beginning	Progress Report
29.	Evaluation of Multipurpose Milk/ Meat Sheep and Goat Production	I. P. Dhakal	May '84	84,280	Beginning	Progress Report
30.	Effect of Feeding Wheat Straw Treated With Urea or Digested Biogas Slurry in Diets of Growing Buffalo	B. K. Sharma	May '84	23,860	Project Terminated	
		Total Rs		1,172,842		
		Total U.S. \$*		78,189		

* From January 1982 to Sept. 1984 the conversion of Nepal rupees to U.S. dollars changed from Rs 13.1 = \$1.00 to RS 17.2 = \$1.00. Rs 15.0 = \$1.00 was used to convert the total rupees to dollars.

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Journal of the Institute of Agriculture and Animal Science
Volume 1., No. 1, December 1977

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APPENDIX V

IAAS CAMPUS PHYSICAL PLANT 1984

Staff Housing at IAAS, Rampur*

Type of Quarters	Number of Buildings	Total Square Feet	Per Family		Total Number of Families
			Number of Rooms	Square Feet	
<i>Senior Staff (Academic and Administrative)</i>					
Dean	1	1,742	8	1,742	1
A ₂ duplex	4	11,996	4	1,500	8
A	8	10,558	4	1,320	8
A ₂	11	12,651	5	1,150	11
Duplex	4	8,304	4	1,038	8
Warden	1	782	4	782	1
C ₂	1	2,827	2	707	4
Ten-family	1	4,480	3	448	10
L	3	5,314	2	443	12
Seven-family**	1	3,411	2	487	7
Five-family**	1	2,651	2	530	5
Remodeled five-family**	1	2,193	4	439	5
Subtotal					80
<i>Junior Staff</i>					
At animal farm	1	565	3	565	1
At animal farm**	1	982	4	491	2
At animal farm	1	370	1	185	2
Lower staff***	7	4,253	2	608	7
Peon***	1	1,411	2	353	4
Subtotal					16

* IAAS guest house and 4 MUCIA mobile homes not included.

** No attached bath and toilet.

*** No toilet facilities.

from: Soefranko and Odell, End-of-Tour Report, 1984

Buildings, Exclusive of Staff Housing, at IAAS, Rampur

Kind of Building	Number of Buildings	Total Square Feet	Total Number of Rooms	Number of Offices Included in Total Rooms
<i>Academic Buildings</i>				
Library	1	19,671	2 large + 5 small	4
New Laboratory	1	14,283	4 large + 20 small	8*
Old Basic Science Laboratory	1	3,449	4 labs. + 4 stores	
Horticulture Laboratory	1	1,711	3	
Dairy Laboratory	1	1,680	2	
New Lecture Building	1	13,086	8	
Old Basic Science Lect.	1	1,387	2	
Agricultural Engineering Shop	1	8,997	3 + 3 sheds	
Horticulture Shade House	1	1,550		
Subtotal		65,805		
<i>Hostels</i>				
New Hostels	3	48,924	90	
Old Hostels	1	15,551	52	
New Food Service	1	6,825	10	
Old Food Service	1	3,000	4	
Subtotal		74,300		
<i>Other Structures</i>				
Administration	1	2,600	8	8
Auditorium	1	15,876	7	
Old Administration	1	12,186	2 large + 29 small	17**
Old Basic Science Buildings	2	900	8	6
Horticulture Department Offices	1	1,504	7	3
Office Building at Animal Farm	1	600	5	1
Agronomy Farm Headquarters	1	16,827	7 + 2 sheds	
Agronomy Grain Bins	3	900	3	
Poultry Houses	3	2,976	5	
Cattle and Buffalo Sheds	7	12,084	10	
Swine Sheds	4	8,000	Pens	
Feed Store	1	1,248	2	
Milk House	1	270	1	
Pit Silo	1	1,440	1	
Dispensary	1	1,170	6	
Post Office	1	1,150	3	
Primary School	1	3,499	7	
Bank	1	2,076	7	
Pump House	1	152	1	
Water Towers	2			

* In addition to these 8 designed offices, 12 other small rooms (2 seminar rooms, 4 laboratories preparation rooms, and 6 storerooms) are currently being used for offices.

** This includes offices for 9 administrative staff members.

APPENDIX VI

IAAS FACULTY AND STAFF

1. March 1975
2. 1977
3. August 1984

INSTITUTE OF AGRICULTURE AND ANIMAL SCIENCE
List of Faculty as of March 1975

1. M. K.B. Rajbhandari Dean

Faculty Members

1. Mr. B. N. Sharma	Campus Chief	Horticulture	
2. Mr. V. Chiranjeev	Lecturer	Plant Pathology	Contract Hire
3. Mr. R.K. Kharub	Lecturer	Extension Education	Contract Hire
4. Mr. Tej Prasad Giri	Lecturer	Agronomy	
5. Mr. K.C. Pande	Lecturer	Entomology	Contract Hire
6. Mr. G.K. Shrestha **	Lecturer	Soil Science	
7. Mr. N.P. Joshi **	Lecturer	Animal Nutrition	
8. Mr. S.D. Sah **	Lecturer	Poultry Science	
9. Mr. Shakya Prakash	Lecturer	Mathematics	
10. Mr. Ananda Shrestha **	Lecturer	Chemistry	
11. Mr. Gopal Prasad Shrestha	Lecturer	Agricultural Engineering	
12. Mr. K.B. Shrestha	Lecturer	Agricultural Engineering	
13. Mr. S.K. Upadhyaya	Lecturer	Physics	
14. Mr. S.K. Sakya **	Lecturer	Animal Science	
15. Mr. J.S.P. Gupta	Lecturer	Agronomy	Contract Hire
16. Mr. S.K. Thapa	Lecturer	Horticulture	
17. Mr. K.T. Augusthy	Lecturer	Fisheries	Contract Hire
18. Mr. N.M. Dhungama	Lecturer	Nepali	
19. Mr. T. Mallik **	Lecturer	Mathematics	

The above list is from a handwritten list found in project records. There may have been some misinterpretations of spellings. No ranks were listed so everyone is listed as a lecturer. Five of the above are Indians (Contract Hires) and fourteen of the above are Nepali. I believe this to be the actual faculty list for IAAS as of March 1975. Members of this group which are still with the Institute in 1984 are marked with a double asterisk (**).

INSTITUTE OF AGRICULTURE AND ANIMAL SCIENCE

List of Faculty and Administrative Officers 1st Baisakh 2034 (1977)

1.	Mr. Netra Bahadur Basnyat	Dean	M.Sc.Ag.	
2.	Mr. Krishana Raj Shrestha	Superintendent	M.A.	

I. PLANT SCIENCE DIVISION				

A. AGRONOMY				
1.	Dr. Amrit Bahadur Karki	Reader/Division Chief	Ph.D.	
2.	Mr. Nanda Kumar Mishra	Reader	M.Sc.Ag.	Permanent Staff
3.	Mr. Krishana Prasad Sharma	Asst. Lecturer	B.Sc.	Study Leave
4.	Mr. Padam Prasad Sharma	Asst. Lecturer	B.Sc.Ag.	Branch Campus
5.	Mr. Moti Lal Prasad	Instructor	J.T.	Study Leave
6.	Mr. Chandra Kishore Mandal	Asst. Lecturer	B.Sc.	Branch Campus/ Temporary
B. SOIL SCIENCE				
1.	Mr. Tej Bahadur Khatri Chhetri	Reader	M.Sc.Ag.	Permanent Staff
2.	Mr. Tara Prakash Nepal	Asst. Lecturer	B.Sc.Ag.	Study Leave
3.	Mr. Shree Chandra Sah	Asst. Lecturer	B.Sc.Ag.	Study Leave
C. HORTICULTURE				
1.	Mr. Raj Deo Prasad Mehta	Lecturer	M.Sc.Ag.	Department of Agriculture; Deputation
2.	Mr. Durga Datta Dhakal	Asst. Lecturer	B.Sc.Ag.	Study Leave
3.	Mr. Gyan Kumar Shrestha	Asst. Lecturer	B.S.Ag.	Study Leave
4.	Mr. Ram Chandra Koirala	Instructor	J.T.	Permanent Staff
D. AGRICULTURAL CHEMISTRY				
1.	Mr. Ananda Prasad Shrestha	Asst. Lecturer	M.Sc.(Chem)	Permanent Staff
E. AGRICULTURAL BOTANY				
1.	Mr. Shiddhi Bir Karmacharaya	Lecturer	M.Sc.(Botany)	Permanent Staff
2.	Mr. Santa Bahadur Gurung	Asst. Lecturer	B.Sc.Ag.	Permanent Staff
F. ENTOMOLOGY				
1.	Mr. Fanindra Prasad Neupane	Reader	M.Sc.Ag.	Permanent Staff
2.	Mr. Krishana Chandra Pandey	Asst. Lecturer	M.Sc.Ag.	Contract Hire
G. PLANT PATHOLOGY				
1.	Mr. Sundar Man Shrestha	Asst. Lecturer	B.Sc.Ag.	Study Leave
H. AGRICULTURAL ENGINEERING				
1.	Mr. Khadga Bahadur Shrestha	Asst. Lecturer	B.Sc.Ag.	Study Leave
2.	Mr. Earl Bauer	Peace Corps Volunteer	B.S.	

II. ANIMAL SCIENCE DIVISION

- | | | | |
|------------------------------|-----------------------|------------------|--|
| 1. Mr. Netra Bahadur Basnyat | Acting Division Chief | M.Sc.Ag. | |
| 2. Ms. Nancy W. Axinn | Visitor | M.Sc. (Home Ec.) | |

A. ANIMAL HUSBANDRY

- | | | | |
|-----------------------------|-----------------------|----------|-------------|
| 1. Mr. Chandra Man Shrestha | Asst. Lecturer | B.Sc.Ag. | Study Leave |
| 2. Mr. Carson Coleman | Peace Corps Volunteer | B.Sc. | |

B. POULTRY HUSBANDRY

- | | | | |
|----------------------------|----------------|----------|-------------|
| 1. Mr. Nanda Prakash Joshi | Asst. Lecturer | B.Sc.Ag. | Study Leave |
| 2. Mr. Saha Deo Sah | Asst. Lecturer | B.Sc.Ag. | Study Leave |

C. VETERINARY

- | | | | |
|---------------------------|----------------|---------|-----------------|
| 1. Mr. Krishna Raj Tiwary | Asst. Lecturer | B.V.Sc. | Study Leave |
| 2. Mr. Sudarshan Tiwary | Instructor | J.T. | Permanent Staff |

D. DAIRY SCIENCE

- | | | | |
|---------------------------------|----------------|----------|-------------|
| 1. Mr. Ganesh Prasad Shrivakoti | Asst. Lecturer | B.Sc.Ag. | Study Leave |
| 2. Mr. Arjun Kumar Kayasta | Instructor | B.Sc.Ag. | Study Leave |

E. FISHERIES

- | | | | |
|---------------------|----------|----------------|---------------|
| 1. Mr. K.T. Augusty | Lecturer | M.Sc.(Zoology) | Contract Hire |
|---------------------|----------|----------------|---------------|

F. AGRICULTURAL ZOOLOGY

- | | | | |
|-----------|--|--|--|
| 1. Vacant | | | |
|-----------|--|--|--|
-

III. RURAL DEVELOPMENT

- | | | | |
|-------------------------------|---|-------|-----------------|
| 1. Mr. Kailash Nath Pyakuryal | Reader | M.Sc. | Permanent Staff |
| 2. Dr. George H. Axinn | Visiting Professor/
MUCIA Chief of Party | Ph.D. | |

A. AGRICULTURAL EXTENSION

- | | | | |
|-------------------------------|----------------|----------|-----------------|
| 1. Mr. Kailash Nath Pyakuryal | Reader | M.Sc.Ag. | Permanent Staff |
| 2. Mr. Satya Narayan Tiwary | Asst. Lecturer | B.Sc.Ag. | Study Leave |

B. AGRICULTURAL EDUCATION

- | | | | |
|--------------------------------|----------------|------------|-----------------|
| 1. Mr. Bishnu Bahadur Bhandari | Asst. Lecturer | M.S. | Permanent Staff |
| 2. Mr. Anirudra Shrestha | Asst. Lecturer | M.S. | Study Leave |
| 3. Mr. Murari Prasad Suvedi | Asst. Lecturer | Dip.Ag.Ed. | Temporary |

C. AGRICULTURAL ECONOMICS

- | | | | |
|-----------------------------|----------------|----------|-------------|
| 1. Mr. Pradeep Man Tulachan | Asst. Lecturer | B.Sc.Ag. | Study Leave |
|-----------------------------|----------------|----------|-------------|

D. FARM MANAGEMENT

- | | | | | |
|----|---------------------------------|----------------|----------|-----------------|
| 1. | Mr. Sri Bindu Ratna Bajracharya | Asst. Lecturer | B.Sc.Ag. | Study Leave |
| 2. | Mr. Bhola Nath Pokharel | Asst. Lecturer | B.Sc.Ag. | Permanent Staff |

E. RURAL SOCIOLOGY

- | | | | | |
|----|--------------------------------|----------------|----------|-------------|
| 1. | Mr. Badri Bahadur Singh Dongol | Asst. Lecturer | B.Sc.Ag. | Study Leave |
|----|--------------------------------|----------------|----------|-------------|

F. ENGLISH

- | | | | | |
|----|-----------------|-----------------------|--------|--|
| 1. | Ms. Ellie Bauer | Peace Corps Volunteer | M.F.A. | |
|----|-----------------|-----------------------|--------|--|

G. NEPALI

- | | | | | |
|----|---------------------------------|----------------|--------------|-----------------|
| 1. | Mr. Upendra Prasad Sharma Rijal | Asst. Lecturer | N.A.(Nepali) | Permanent Staff |
|----|---------------------------------|----------------|--------------|-----------------|

H. AGRICULTURAL INFORMATION

- | | | | | |
|----|--------------------|-----------|----------|-------------|
| 1. | Mr. Narayan Kunwar | Assistant | B.Sc.Ag. | Study Leave |
|----|--------------------|-----------|----------|-------------|

I. AUDIO VISUAL

- | | | | | |
|----|-----------------|-----------------------|--------|--|
| 1. | Ms. Ellie Bauer | Peace Corps Volunteer | M.F.A. | |
|----|-----------------|-----------------------|--------|--|

J. MATHEMATICS

- | | | | | |
|----|--------------------------|----------------|-------------|-----------------|
| 1. | Mr. Thackan Mallick | Lecturer | M.Sc.(Math) | Permanent Staff |
| 2. | Mr. Prakash Ratna Shakya | Asst. Lecturer | M.Sc.(Math) | Permanent Staff |

STATISTICS

- | | | | | |
|----|-----------------------|----------------|----------|-------------|
| 1. | Mr. Uma Shanker Gupta | Asst. Lecturer | B.Sc.Ag. | Study Leave |
|----|-----------------------|----------------|----------|-------------|

IV. ACADEMIC AFFAIR

- | | | | | |
|----|-----------------------------|-------------------|----------|-----------------|
| 1. | Mr. Fanindra Prasad Neupane | Reader/Asst. Dean | M.Sc.Ag. | Permanent Staff |
|----|-----------------------------|-------------------|----------|-----------------|

A. EXAMINATIONS

- | | | | | |
|----|-----------------------|----------------|-------------|-----------------|
| 1. | Mr. Thackan Mallick | Lecturer | M.Sc.(Math) | Permanent Staff |
| 2. | Mr. Ishwar Kumar Piya | Superintendent | B.A. | Temporary |

B. LIBRARY

- | | | | | |
|----|-----------------------------|----------------|------|-----------------|
| 1. | Mr. Laxmi Narayan Chaudhary | P.A. | B.A. | Permanent Staff |
| 2. | Ms. Lalita Manandhar | Head Assistant | B.A. | Study Leave |

C. WARDEN

- | | | | | |
|----|--------------------------------|--------|----------|-----------------|
| 1. | Mr. Tej Bahadur Khatri Chhetri | Reader | M.Sc.Ag. | Permanent Staff |
|----|--------------------------------|--------|----------|-----------------|

D. CLINIC

- | | | | | |
|----|-------------------|-----------------------|------|--|
| 1. | Ms. Susan Coleman | Peace Corps Volunteer | R.N. | |
|----|-------------------|-----------------------|------|--|

V. ADMINISTRATIVE AFFAIRS

1. Mr. Netra Bahadur Basnyat	Acting in Charge	M.Sc.Ag.	
2. Mr. Kashi Nath Devkota	Finance and Budget	B.Com.	Temporary
3. Mr. Krishna Raj Shrestha	Personnel and Records	M.A.	Permanent Staff
4. Mr. Sarashwati Giri	Property Management	B.A.	Temporary
5. Mr. Nava Raj Khatri Chhetri	Procurement	B.A.	Permanent Staff
6. Mr. Keshab Prasad Ghimire	Property Management/ Campus Development	B.Sc.(Engg)	Contract
7. Mr. Vacant	Buildings and Grounds Maintenance		
8. Mr. Nanda Kumar Mishra	Farm Operations	M.Sc.Ag.	Permanent Staff
9. Mr. Tej Bahadur Khatri Chhetri	Guest House	M.Sc.Ag.	Permanent Staff
10. Mr. Vacant	Cooperative Store		

VI. VISITORS

A. MUCIA/IAAS Office

1. Dr. George H. Axinn	Visiting Professor	Ph.D.	Visitor
2. Ms. Nancy W. Axinn	Visitor	M.Sc.	Visitor
3. Mr. Dwarika Man Shrestha	Sr. Administrative Officer	B.A.	Contract
4. Mr. Udaya Rayamadjhi	Kathmandu Office	B.Com.	Temporary

B. Indian Cooperation Mission

1. Dr. Om Prakash Gupta	Visiting Professor	Ph.D.	Visitor
-------------------------	--------------------	-------	---------

C. Peace Corps Volunteers

1. Mr. Earl Bauer B.Sc.
2. Ms. Susan Bauer M.F.A.
3. Mr. Carson Coleman B.S.
4. Ms. Susan Coleman R.N.

**The above was taken from the Annual Report for 2033-2034 (1976-1977) pages 5-13. The same format as is found in the Report has been followed with the exceptions of part V and part VI, which were altered to save space.

***An interesting note is that two MUCIA visitors, the first two, who were present through most of the reporting period do not seem to be mentioned in the report at all.

Dr. O. Donald Meaders, MUCIA Agriculture Education Advisor Feb. 1, 1976-April 20, 1977
Mr. Glenn Maddy, MUCIA Agricultural Extension/Education Advisor Jan. 20, 1976-March 31, 1977.

"Manpower Development"

The year 2033 has seen major achievements in the staffing of this Institute. Staff members have increased significantly, and a long range manpower development program had been designed and put into operation. In the beginning of the year, the IAAS staff at Rampur consisted of a Dean and 21 staff members. Of the latter there were eleven in the Plant Sciences, of whom only three were permanent staff; five in Animal Sciences, of whom two were permanent staff; and five in Rural Development. By the end of the year, after

vigorous recruiting, interviewing, and selection effort, there were twenty academic personnel in the Plant Science Division, of whom 15 were permanent staff; ten in the Animal Science Division, with six permanent staff; and sixteen in Rural Development; of whom 13 are permanent staff. (Annual Report 2033-2034, pp. 46-47, 1976)"

INSTITUTE OF AGRICULTURE AND ANIMAL SCIENCE

List of Faculty and Administrative Officers August 1984

No.	Name	Rank	Degree	Subject	Remarks
1.	Mr. Bindeshwori Prasad Sinha	Dean	M.Sc.	Entomology	
2.	Dr. Kailash Nath Pyakuryal	Asst. Dean			
		Academic	Ph.D.	Rural Sociology	
3.	Mr. Narayan Kunwar	Asst. Dean		Agricultural	
		Administrative	M.Sc.	Communications	

I. DEPARTMENT OF AGRONOMY

1.	Mr. Uma Shankar Gupta	Lecturer/ Chairperson	M.Sc.	Agronomy	
2.	Mr. Nand Kumar Mishra	Reader	M.Sc.	Agronomy	Study leave
3.	Mr. Dev N. Yadav	Lecturer	M.Sc.	Agronomy	
4.	Mr. Bhadra B. Pant	Lecturer	M.Sc.	Agronomy	
5.	Mr. Krishna P. Sharma	Lecturer	M.Sc.	Agronomy	Study leave
6.	Mr. Tara P. Nepal	Lecturer	M.Sc.	Agronomy	Study leave
7.	Mr. Ashok K. Mallik	Lecturer	M.Sc.	Agronomy	Temporary
8.	Mr. Narendra K. Chaudhary	Asst. Lecturer	M.Sc.	Agronomy	
9.	Mr. Pam C. Sharma	Asst. Lecturer	M.Sc.	Agronomy	Study leave
10.	Mr. Laxmi P. Suvedi	Asst. Lecturer	M.Sc.	Agronomy	Study leave
11.	Mr. Jagdish Timilsina	Asst. Lecturer	M.Sc.	Agronomy	
12.	Mr. Rabi Poudel	Asst. Lecturer	B.Sc.	Agriculture	Temporary
13.	Mr. Moti Lal Prasad	Instructor/Farm Manager	J.T.	Agriculture	

II. DEPARTMENT OF PLANT PROTECTION

1.	Dr. Fanendra P. Neupane	Professor/ Chairperson	Ph.D.	Entomology	
2.	Mr. Sundar Man Shrestha	Lecturer	M.Sc.	Plant Pathology	
3.	Mr. Chandra K. Mandal	Lecturer	M.Sc.	Entomology	
4.	Mr. Resham B. Thapa	Lecturer	M.Sc.	Entomology	
5.	Dr. Anil K. Singh	Lecturer	Ph.D.	Plant Protection	Contract hire
6.	Mr. Suresh C. Raj	Lecturer	M.Sc.	Zoology	Contract hire
7.	Mr. Shiva P. Singh	Lecturer	M.Sc.	Plant Pathology	Contract hire
8.	Mr. Tika B. Adhikari	Asst. Lecturer	B.Sc.	Plant Pathology	Study leave
9.	Mr. Ganesh Dahal	Asst. Lecturer	B.Sc.	Plant Pathology	Study leave
10.	Mr. Amar N. Shukla	Asst. Lecturer	M.Sc.	Zoology	Temporary

III. DEPARTMENT OF AGRICULTURAL BOTANY

1.	Mr. Santa B. Gurung	Lecturer	M.Sc.	Agricultural Botany	
2.	Mr. Mukbal Hussain Khan	Asst. Lecturer	M.Sc.	Botany	
3.	Mr. Arjun K. Shivivastav	Asst. Lecturer	M.Sc.	Botany	

IV. DEPARTMENT OF HORTICULTURE

1.	Mr. Rishi Raj Adhikari	Lecturer/ Chairperson	M.Sc.	Horticulture	
2.	Mr. Durga Datta Dhakal	Lecturer	M.Sc.	Horticulture	
3.	Mr. Gyan Kumar Shrestha	Lecturer	M.Sc.	Horticulture	Study leave
4.	Mr. Gopi Uprety	Lecturer	M.Sc.	Horticulture	
5.	Mr. Dilli Ram Baral	Lecturer	M.Sc.	Horticulture	
6.	Mr. Shanta Man Shakya	Lecturer	M.Sc.	Horticulture	
7.	Mr. Ram C. Koirala	Instructor/ Farm Manager	J.T.	Horticulture	

V. DEPARTMENT OF SOIL SCIENCE AND CHEMISTRY

1.	Mr. Padam Prasad Sharma	Lecturer/ Chairperson	M.Sc.	Soil Science	
2.	Dr. Tej Bahadur K.C.	Professor	Ph.D.	Soil Science	
3.	Mr. Sri Chandra Sah	Lecturer	M.Sc.	Soil Science	
4.	Mr. Jaya Raj Joshi	Lecturer	M.Sc.	Soil Science	
5.	Mr. Bhairab R. Khakuryal	Lecturer	M.Sc.	Soil Science	
6.	Mr. Anand P. Shrestha	Lecturer	M.Sc.	Chemistry	Study leave
7.	Mr. Jagdamba P. Choudhary	Lecturer	M.Sc.	Chemistry	Contract hire
8.	Mr. Rameshwar Pandey	Lecturer	M.Sc.	Chemistry	Contract hire

VI. DEPARTMENT OF ANIMAL SCIENCE

1.	Mr. Krishna Raj Tiwari	Lecturer/ Chairperson	M.Sc.	Animal Science	
2.	Mr. Nanda P. Joshi	Lecturer	M.Sc.	Animal Science	Study leave
3.	Mr. Saha Dev Sah	Lecturer	M.Sc.	Animal Husbandry	
4.	Mr. Mahashwar Sapkota	Lecturer	M.Sc.	Animal Nutrition	
5.	Mr. Dainik B. Nepali	Lecturer/ Farm Manager	M.Sc.	Animal Husbandry	
6.	Mr. Nagendra Shah	Lecturer	M.S.	Dairy Science	Study leave
7.	Mr. Bal Krishna Sharma	Asst. Lecturer	M.S.	Dairy Science	Study leave
8.	Mr. Ishwari P. Dhakal	Asst. Lecturer	B.V.Sc.	Animal Science	
9.	Mr. Dilip K. Jha	Asst. Lecturer	M.Sc.	Zoology(fisheries)	Temporary
10.	Mr. Chandra Man Shrestha	Lecturer	M.Sc.	Economics	Study leave
11.	Mr. Mohan Kharel	Asst. Lecturer	M.Sc.	Animal Science	
12.	Mr. Sudarsan Tiwari	Instructor	J.T.	Animal Science	

VII. DEPARTMENT OF AGRICULTURAL EXTENSION AND RURAL SOCIOLOGY

1.	Mr. Badri Bahadur Singh Dangol	Lecturer/ Chairperson	M.S.	Extension Education	
2.	Mr. Bishnu Bhandari	Lecturer	M.S.	Extension Education	Study leave
3.	Mr. Murari P. Suvedi	Lecturer	M.S.	Agricultural Extension	
4.	Mr. Narsingh P. Gupta	Lecturer	M.S.	Agricultural Extension	

VIII. DEPARTMENT OF AGRICULTURAL ECONOMICS

1.	Mr. Ganesh P. Shivakoti	Lecturer/ Chairperson	M.Sc.	Economics	
2.	Mr. Ganesh M. Singh Adhikari	Reader	M.Sc.	Economics	Study leave
3.	Mr. Bhola Nath Pokharel	Lecturer	M.S.	Economics	
4.	Mr. Pradeep Man Tulachan	Lecturer	M.S.	Economics	Study leave
5.	Mr. Sribindu R. Bajracharya	Lecturer	M.S.	Farm Management	On leave w/o
6.	Mr. Janka P. Sharma	Asst. Lecturer	M.S.	Economics	Temporary

IX. DEPARTMENT OF AGRICULTURAL ENGINEERING AND PHYSICS

1.	Mr. Ram B. Cshetry	Asst. Lecturer/ Chairperson	M.Sc.	Physics	
2.	Mr. Badri B. Basnyat	Asst. Lecturer	M.Sc.	Agricultural Engineering	
3.	Mr. Mithilesh K. Sahay	Lecturer	M.Sc.	Physics	Contract hire
4.	Mr. Karana K. Sinha	Lecturer	M.Sc.	Physics	Contract hire

X. DEPARTMENT OF AGRICULTURAL STATISTICS

1.	Mr. Thakkan Mallik	Lecturer	M.Sc.	Mathematics	Study leave
2.	Mr. Prem N. Tripathi	Lecturer	M.Sc.	Mathematics	Contract hire
3.	Mr. Buddhi S. Pandey	Asst. Lecturer	M.Sc.	Mathematics	Contract hire
4.	Mr. Mukund P. Gajurel	Asst. Lecturer	M.Sc.	Mathematics	Study leave

XI. DEPARTMENT OF HUMANITIES

1.	Ms. Rama Shivakoti	Asst. Lecturer/ Chairperson	M.A.	Nepali	Temporary
2.	Ms. Meena Pokharel	Asst. Lecturer	M.A.	History	Temporary
3.	Mr. Munna S. Kalhansa	Asst. Lecturer	M.A.	English	Contract hire
4.	Mr. Hom Nath Sapkota	Asst. Lecturer	M.A.	Nepali	

IAAS ADMINISTRATIVE STAFF-KEY MEMBERS

1.	Mr. Nav Raj. Khatri Chhetri	Deputy Adminis- trator	M.A.	Personnel and General Administration	
2.	Mr. Ganga Lal Shrestha	Deputy Adminis- trator	B.Com.	Academic Administration	
3.	Mr. Buddhi L. Bhandari	Accounts Con- troller	B.Com.	Financial Administration	
4.	Mr. Devendra Devkota	Accounts Officer	M.Com.	Financial Administration	
5.	Ms. Asha Batsa	Head Assistant		Income Section	
6.	Mr. Bishnu Hari Devkota	Asst. Librarian	B.A.and B.Lib	Librarian	
7.	Ms. Indra Regmi	Asst. Librarian			
8.	Mr. Dinesh Raj Bista	Asst. Adminis- trator	B.A.	Property Management	
9.	Mr. Khada Nanda Sharma	Asst. Adminis- trator	B.A.	Project Accounts	
10.	Mr. Pushpa Bimal Bhandari	Asst. Adminis- trator	D.P.A. and B.Ed.	General Store	
11.	Mr. K.N. Devkota	Asst. Adminis- trator	B.Com.	Administration	Temporary
12.		Asst. Adminis- trator		General Adminis- tration Academic	Vacant

13. Mr. Tara P. Paudel	Overseer
14. Ms. Pratima Suwal	Head Assistant

IAAS BRANCH CAMPUS AT PAKLIHAWA

1. Mr. Jagat Lal Yadav	Campus Chief	M.Sc.	Animal Science	
2. Mr. Tej Bahadur Nepali	Lecturer	M.Sc.	Botany	
3. Mr. A. Shrestha	Lecturer	M.S.	Agricultural Education	
4. Mr. Durga Mani Gautam	Asst. Lecturer	M.Sc.	Horticulture	
5. Mr. Shyam Kishor Sah	Asst. Lecturer	M.Sc.	Vet. Science	
6. Mr. Shrawan Kumar Shah	Asst. Lecturer	B.Sc.Ag.	Agronomy	
7. Mr. Suroj Pokharel	Asst. Lecturer	-do-	Animal Science	Temporary
8. Mr. Gopal Chandra Sharma	Asst. Lecturer	B.Sc.	Extension	Temporary
9. Mr. Tripuri Prasad Singh	Asst. Lecturer	M.Sc.	Zoology	Temporary
10. Mr. Narayan Prasad Khanal	Asst. Lecturer	M.A.	Nepali	Temporary
11. Mr. Tara Nath Pandey	Asst. Lecturer	B.Sc.Ag.	Livestock	Temporary
12. Dr. Dhruva Narain Pathak	Lecturer	Ph.D.	Chemistry	Contract hire
13. Dr. N.P. Tiwari	Lecturer	Ph.D.	Zoology	Contract hire
14. Dr. Shailendra Kumar Tripathi	Lecturer	Ph.D.	Mathematics	Contract hire
15. Mr. Tarkeswar Prasad Tripathi	Lecturer	M.Sc.	Chemistry	Contract hire
16. Mr. Krishna Nath Pandey	Lecturer	M.A.	English	Contract hire
17. Mr. R.B. Singh	Lecturer	M.A.	Physics	Contract hire
18. Mr. Ashok Mallik	Lecturer	M.Sc.	Agronomy	

PAKLIHAWA ADMINISTRATION

1. Mr. A.A. Mikrani	Asst. Adminis- trator	M.A.	General Administration
2. Mr. Binaya Prakash Tiwari	Head Assistant		General Administration

IAAS BRANCH CAMPUS AT LAMJUNG

1. Mr. Satya Narayan Tiwari	Campus Chief	M.S.	Extension Education	
2. Mr. Devi Ghimire	Asst. Lecturer	B.Sc.Ag.	Farm Management	
3. Mr. Niraj N. Joshi	Asst. Lecturer	B.Sc.Ag.	Horticulture	
4. Mr. Purandhar Dhital	Asst. Lecturer	B.Sc.Ag.	Horticulture	
5. Mr. Sunil Nepal	Asst. Lecturer	B.Sc.Ag.	Extension	
6. Mr. Ramesh R. Pokharel	Asst. Lecturer	B.Sc.Ag.	Agronomy	
7. Mr. B.P. Pathak	Asst. Lecturer	B.Sc.Ag.	Soil Science	
8. Mr. Mana Raj Kolachhapati	Asst. Lecturer	B.Sc.Ag.	Animal Science	
9. Mr. Bir Bahadur Thapa	Asst. Lecturer	B.Sc.Ag.	Extension	Temporary
10. Mr. Kishor Prasad Gajurel	Asst. Lecturer	B.Sc.Ag.	Animal Science	Temporary
11. Mr. M. Mohan Sharma	Asst. Lecturer	B.Sc.Ag.	Agronomy	Temporary
12. Mr. Rajendra Shrestha	Asst. Lecturer		Animal Science	

LAMJUNG ADMINISTRATION

1. Mr. Jagan Nath Chalise	Asst. Adminis- trator	B.A.	General Administration
2. Mr. Keshab Prashad Shrestha	Account Officer	B.Com.	Accounts
3. Mr. Bhanu Bhakta Neupane	Head Assistant		

**The above list is not a complete list as of September 30, 1984. There were several additions to the faculty in the last two months of the project which are not recorded here. This list is a compilation based on: (1) the last official list of IAAS staff and administrative officers available (Jan 1984); (2) staff list in USAID contractor Cordell Hatch's draft report; (3) Rampur Roundup announcements of position shifts; and, (4) an update on where Philippine training participants were stationed when they returned home provided by Asst. Dean, Dr. Pyakuryal. Furthermore it is known the departments regrouped in September 1984.

APPENDIX VII

IAAS GRADUATES THROUGH 1983

I A A S G R A D U A T E S

<u>Campus/Program</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>1978/79</u>	<u>1979/80</u>	<u>1980/81</u>	<u>1981/82</u>	<u>1982/83</u>	<u>Total</u>
Rampur											
J.T.A.	86	-	-	-	-	-	-	-	-	-	86
J.T.	41	34	97	84	94	150	164	-	213	-	877
B.Sc.	-	-	-	-	-	28	75	2	61	71*	237
Vo-Ag. Teachers	23	68	34	54	39	41	8	-	-	-	267
Lamjung											
J.T.A.	-	-	-	-	49	73	77	125	166*	162*	652
Pakhlihawa											
J.T.A.	-	-	-	-	-	83	255	17	164*	163*	682
J.T.	-	-	-	-	-	-	-	261	-	200*	461
Khumaltar/ Tripureswar											
J.T.A.	-	21	61	90	88	83	12	70	62	98*	585
Janakpur											
J.T.A.	-	31	39	50	49	57	7	-	95	87*	416
Nepalgunj											
J.T.A.	-	15	28	44	40	44	10	-	-	-	181
Parwanipur											
J.T.A.	-	20	37	53	45	55	4	-	-	-	214

*Estimated.

Source: from USAID project amendment #2 draft 1983.
Does not account for 1983-1984 production.

Total Production by 1983

J.T.A. 2595

J.J. 1338

B.Sc. 237

Vo-Ag 267

APPENDIX VIII

IAAS/MUCIA REPORTS, DOCUMENTS AND BIBLIOGRAPHY

1. Selected Thesis Titles
2. MUCIA End-of-Tour Reports
3. MUCIA Progress Reports
4. Joint Annual Reviews
5. MUCIA/IAAS Study Tour Reports
6. IAAS/MUCIA Documents
7. Bibliography

SELECTED
THESIS TITLES

NEPAL PROJECT PARTICIPANTS

<u>PARTICIPANT</u>	<u>TITLE</u>	<u>UNIVERSITY</u>
Sajracharya, Sribindu	"A Proposal for Teaching Farm Management at the Institute of Agriculture and Animal Science Tribhuvan University, Rampur, Nepal" (Plan B Paper)	Michigan State University
Joshi, Nanda Prakash	"Development of a Method of Biological-Assay for the Quality of Protein in a Feedstuff"	Ohio State University
Gunwar, Narayan	"Sources of Agricultural Information Used by Village Level Extension Workers of Nepal"	University of Wisconsin-Madison
Sharma, Krishna Prasad	"Effects of Genotypic Variation and Delayed Harvest Upon Seed Quality in <u>Phaseolus Vulgaris</u> L. Under Conditions of Internal Seed-Borne Fungal Infection"	Michigan State University
Shrestha, Chandra Man	"Effect of Four Stall Operation Times on the Performance of an Electronic Transponder Feeding System and on the Feeding Behavior of Lactating Dairy Cows"	University of Illinois at Urbana-Champaign
Triwary, Satya	"An Assessment of Characteristics and Needs of Small Scale Farmers in South East Ohio"	Ohio State University
Mulachan, Pradeep Man	"Demand and Production of Rice in Nepal: The Past Situation and Future Prospect"	University of Illinois at Urbana-Champaign

END-OF-TOUR REPORTS
MUCIA/AID PROJECT AT THE INSTITUTE OF AGRICULTURE AND ANIMAL SCIENCES
AID/NESA-C-1197

Axinn, George

1978 Chief of Party's Long Term End-of-Tour Report. 21 June 1976 - 7 June 1978. 14 pgs.

1980a End-of-Tour Report on Consultation in Rural Development and Educational Policy. Short Term Advisor's End-of-Tour Report. 13 March 1980 - 31 March 1980. 14 pgs.

1980b Consultation on Rural Development. Short Term Advisor's End-of-Tour Report. 10 August 1980 - 14 September 1980. 18 pgs.

Axinn, Nancy

1978 Extension/Adult/Non-formal Education. Long Term Advisor's End-of-Tour Report. 21 June 1976 - 20 July 1978. 20 pgs.

Beecher, John

1979 Library Development Advisor. Short Term Advisor's End-of-Tour Report. 3 May 1979 - 7 June 1979. 27 pgs.

1983 Library Science Planner. Short Term Advisor's End-of-Tour Report. November 1983.

Bird, Herbert R.

1978 Animal Science Advisor. Long Term End-of-Tour Report. 19 January 1978 - 21 April 1978.

Bittenbender, Harry C.

1980 Plant Science Advisor's Long Term End-of-Tour Report. 18 August 1978 - 31 December 1980.

Chapman, R. Keith

1980 Entomology Research Advisor's Short Term End-of-Tour Report. 11 August 1980 - 20 August 1980. 16 pgs.

Combs, Weslie

1982 A Proposed Prospectus for the Development of the Department of Animal Science at IAAS. Animal Science Advisor's Short Term End-of-Tour Report. 9 January 1982 - 28 February 1982. 219 pgs.

1984 Long Term Animal Science Advisor's End-of-Tour Report. 23 September 1982 - 30 September 1984. 108 pgs.

Coppel, Harry C.

1979 Entomology Advisor. Short Term Advisor's End-of-Tour Report. March - April 1979. 20 pgs.

Cress, Charles E.

1983 Statistical Methods and Experimental Design (a course). Short Term Advisor's End-of-Tour Report. 27 July 1983 - 12 September 1983. 21 pgs.

Deans, Robert J.

- 1978 Animal Science/Livestock Management. Short Term Advisor's End-of-Tour Report. 30 pgs.

Foth, Henry C.

- 1982 Soil Science Advisor's Long Term End-of-Tour Report. 10 January 1981 - 31 August 1982. 55 pgs.

Kaplan, Paul

- 1981 Rural Development Advisor's Long Term End-of-Tour Report. 10 August 1979 - 9 September 1981. 60 pgs.

Krauss, David P.

- 1983 Laboratory Equipment Specialist Short Term Advisor's End-of-Tour Report. 7 July 1983 - 9 September 1983. 22 pgs.

- 1984 Laboratory Equipment Specialist Short Term Advisor's End-of-Tour Report. 27 July 1984 - 1 September 1984. 38 pgs.

Libby, John L.

- 1977 Entomology Research and Curriculum Development. Short Term Advisor's End-of-Tour Report. 4 June 1977 - 6 July 1977. 15 pgs.

- 1978 Entomology Advisor's Short Term End-of-Tour Report. 7 April 1978 - 8 May 1978. 18 pgs.

Maddy, Glenn E.

- 1977 Agricultural Extension/Education Advisor. Long Term Advisor's End-of-Tour Report. 20 January 1976 - 31 March 1977. 8 pgs.

Meaders, O. Donald

- 1977 Chief of Party and Curriculum Development Advisor. Long Term End-of-Tour Report. 1 February 1977 - 20 April 1977. 12 pgs.

Miller, James

- 1976 Campus Planning Short Term Advisor's End-of-Tour Report. 29 September - 8 October 1976. 32 pgs.

- 1978 Campus Planning Short Term Advisor's End-of-Tour Report. 1 February - 25 February 1978. 31 pgs.

- 1983 Campus Planning Short Term Advisor's End-of-Tour Report. 29 September - 8 October 1983. 10 pgs.

Miller, Kenneth P.

- 1979 Animal Science Advisor's Long Term End-of-Tour Report. 11 October 1978 - 4 February 1979. 54 pgs.

Nelson, Wallace W.

- 1977 Farm Management Advisor. Short Term End-of-Tour Report. 22 September - 14 October 1977. 19 pgs.

Ray, Rex E.

- 1980 Agricultural Education Advisor and Chief of Party. Long Term Advisor's End-of-Tour Report. 20 July 1978 - 30 September 1980. 20 pgs.

Scherer, M.D.

- 1978 Students Records and Administration. Short Term Advisor's End-of-Tour Report. 9 May 1978 - 13 June 1978. 42 pgs.

Schulte, Emmett E.

- 1977 Soil Science Research. Short Term Advisor's End-of-Tour Report. 4 June - 6 July 1977. ?? pgs.
- 1978 Soil Science Research and Curriculum Development. Short Term Advisor's End-of-Tour Report. 18 February - 11 March 1978. 23 pgs.

Schwarzweiler, Harry K.

- 1981 Rural Sociology and Extension Education. Short Term Advisor's End-of-Tour Report. 15 March 1981 - 3 April 1981. 6 pgs.

Soefranko, Andrew J. and Russell T. Odell

- 1984 A Review of Current Progress and Suggestions for Further Development of the Institute of Agriculture and Animal Sciences, Rampur, Nepal. Academic Advisors' Short Term End-of-Tour Report. May-June 1984. 71 pgs.

Thorne, Marlowe D.

- 1982 Agronomy Advisor's Short Term End-of-Tour Report. 7-28 July 1982. 13 pgs.
- 1984 Chief of Party and Plant Science Advisor's Long Term End-of-Tour Report. October 1982 - 31 July 1984. 17 pgs.

Wamhoff, Carroll H. and Colleen R. Cooper.

- 1984 Effective Classroom Instruction Course. Instruction Improvement Advisors' Short Term End-of-Tour Report. 15 March - 14 April 1984. 10 pgs. + 100 pgs. appendices.

Whittier, Herbert L.

- 1982 Rural Development and Extension Education at IAAS, Rampur, Nepal. Rural Development Advisor's Short Term End-of-Tour Report. 27 September - 16 October 1982. 31 pgs.
- 1984 The Development of Nepal's Institute of Agriculture and Animal Sciences: The Final Four Months. Chief of Party: 1 June 1984 - 30 September 1984. December 1984, pp. 1-23.
- 1984 A Review of the Growth of Rural Development and Extension Education at Nepal's Institute of Agriculture and Animal Sciences. Rural Development Advisor: 13 December 1982 - 30 September 1984. December 1984 pp. 1-129.

Williams, Jesse B.

- 1981 Animal Science Advisor's Long Term End-of-Tour Report. 1 May 1979 - 31 May 1981. 43 pgs.

Wilson, Kim and Andrew Soefranko

- 1982 Workplan for July 1982 through September 1984, IAAS-MUCIA Project. Project Planners' Report. 16 June - 30 June 1982. 107 pgs.

Wood, Garland.

1983 Chief of Party and Rural Development Advisor's Long Term End-of-Tour Report. 17 December 1980 - October 1982. 130 pgs.

MUCIA REPORTS
Project 367-11-110-102
Contract AID/NESA-C-1197

MUCIA:

- 1976 Nepal Progress Report for the period 1 December 1975 to 30 June 1976: Development of IAAS, (includes General Agreement between T.U. and MUCIA and Activity Agreement No. 1. between MUCIA and IAAS). July 1976. 21 pages + 16 pages appendices.
- 1977 Nepal Progress Report for the period 1 July 1976 to 31 December 1976: Development of IAAS (includes Second Revision of the Work Plan for the MUCIA/AID Team at I.A.A.S., Rampur), n.d. 11 pages + 24 pages appendices.
- 1977 Nepal Progress Report for the period 1 January 1977 to 30 June 1977: Development of IAAS. n.d. 10 pages + 6 pages appendices.
- 1978 Nepal Progress Report for the period 1 July 1977 to 31 December 1977: Development of IAAS. n.d.
- 1978 Nepal Progress Report for the period 1 January 1978 to 30 June 1978: Development of IAAS. n.d. 10 pages.
- 1979 Nepal Progress Report for the period 1 July 1978 to 31 December 1978: Development of IAAS. n.d. 8 pages.
- 1979 Nepal Progress Report for the period 1 January 1979 - 30 June 1979: Development of IAAS. (contains revised work plan). n.d. 6 pages + 11 pages appendices.
- 1980 Nepal Progress Report for the period 1 July 1979 - 31 December 1979; Development of IAAS. n.d. 6 pages.
- 1981 Nepal Progress Report for the period 1 July 1980 - 31 October 1980: Development of IAAS. n.d. 6 pages.
- 1981 Nepal Progress Report for the period 1 January - 30 June 1981: Development of IAAS. n.d. pages.
- 1982 Nepal Progress Report for the period 1 July - 31 December 1981: Development of IAAS. n.d. 9 pages + 45 pages appendices.
- 1982 Nepal Progress Report for the period 1 January - 30 June 1982: Development of IAAS. n.d. pages.
- 1983 Nepal Progress Report for the period 1 July 1982 to 30 June 1983: Development of IAAS. n.d. 81 pages.
- 1984 Nepal Progress Report for the period 1 July 1983 to 31 December 1983: Development of IAAS. (includes specific work plan of MUCIA/NEPAL PROJECT through September 1984). n.d. 26 pages + 12 pages appendices.

IAAS/MUCIA/USAID JOINT ANNUAL REVIEWS
DEVELOPEMNT OF IAAS
PROJECT 367-11-110-102
CONTRACT AID/NESA-C-1197

Axinn, George (Compiler)

1977 Proceedings of the First Joint Annual Review. Conducted at: The Institute for Agriculture and Animal Science, Rampur, Chitwan, Nepal. September 1977. pages.

Ray, Rex E. (Compiler)

1979 Proceedings of the Second Joint Annual Review. IAAS/MUCIA/USAID. Conducted at: The Institute for Agriculture and Animal Science, Rampur, Nepal. 1-14 December 1978. 57 pages.

Ray, Rex E. (Compiler)

1980 Proceedings of the Third Joint Annual Review. IAAS/MUCIA/USAID. Conducted at: The Institute for Agriculture and Animal Science. Rampur and in Kathmandu, Nepal. 18-21 February 1980. 187 pages.

Wood, Garland P. (Compiler)

1982 Proceedings of the Fourth Joint Annual Review. IAAS/MUCIA/USAID. Conducted at The Institute for Agriculture and Animal Science. Rampur, Nepal. 1-3 December 1981. 156 pages.

STUDY TOUR REPORTS

Combs, Weslie

- 1983 Sheep, Goat, and Buffalo Dairy System; Cyprus, Greece and Italy: MUCIA/IAAS Mediterranean Livestock Study Tour 3-27 June 1983. MUCIA/AID Project at the Institute of Agriculture and Animal Sciences, AID/NESA-C-1197, September 1983. 48 pages.

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