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Date: 8/23/77

MEMORANDUM

To: GM/COD, Mr. Robert O'Brien
From: TA/PPU, Mary E. Mozynski (Signed)
Subject: Advance Procurement Action

The attached unfunded PIO/T for the project listed below is forwarded to the Office of Contract Management for Advance Procurement Action. This project is included within the program level of RDA No. 1 which currently exceeds the level in the FY 1977 Congressional Presentation. A C.P. notification has been prepared and is in the clearance process. After the notification has been submitted to the Congress and the 15-day waiting period has expired, the funded PIO/T will be forwarded to your office.

Project Number: 931-1302
Project Title: Small Farmer Technology and Marketing Analysis
for Rural Development
Amount: \$750,000
Program: Research _____ Section 211 (d) x GTS _____

Attachment: a/s

AID 1350-1X (7-71)	DEPARTMENT OF STATE AGENCY FOR INTERNATIONAL DEVELOPMENT	1. Cooperating Country TA Bureau	Page 1 of Pages																																		
		2. PIO/T No. 931-1302-3179142	3. <input checked="" type="checkbox"/> Original or Amendment No. _____																																		
PIO/T	PROJECT IMPLEMENTATION ORDER/TECHNICAL SERVICES	4. Project/Activity No. and Title 931-1302 931-1302 Small Farmer Technology and Marketing Analysis for Rural Development																																			
		DISTRIBUTION																																			
5. Appropriation Symbol 72-11x1023		6.A. Allotment Symbol and Charge 402-31-099-00-34-71	6.B. Funds Allotted to: <input checked="" type="checkbox"/> A.I.D./W <input type="checkbox"/> Mission																																		
7. Obligation Status <input checked="" type="checkbox"/> Administrative Reservation <input type="checkbox"/> Implementing Document		8. Funding Period (Mo., Day, Yr.) From 9/20/77 To 9/19/82																																			
9.A. Services to Start (Mo., Day, Yr.) Between 9/20/77 and 9/30/77		9.B. Completion date of Services (Mo., Day, Yr.) 9/19/82																																			
10.A. Type of Action <input type="checkbox"/> A.I.D. Contract <input type="checkbox"/> Cooperating Country Contract <input type="checkbox"/> Participating Agency Service Agreement <input checked="" type="checkbox"/> Other 211(d) Grant																																					
10.B. Authorized Agent AID/W with North Carolina A & T State University																																					
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12. Cooperating Country Contributions	A. Counterpart																																				
	B. Other																																				
13. Mission References		14. Instructions to Authorized Agent The Contract Office is requested to negotiate a 211(d) grant to North Carolina Agricultural and Technical State University for five years as per the attached proposal from the grantee. This proposal is within the parameters of the GPS reviewed and approved by the R and D Committee on July 12, 1976 and approved by the DA/AID on August 26, 1977 This grant will enable North Carolina A and T State University to develop a response capability and multidisciplinary capacity to assist LDCs in such areas as small farmer technology and marketing analysis. The Proposer's estimated budget is shown on page 21 of the attached Grant Project Statement. Final negotiated funding level will be guided by the figure in block 11 above.																																			
15. Clearances - show Office Symbol, Signature and Date for all necessary clearances																																					
A. The specifications in the scope of work are technically adequate TA/AGR/ESP, WMerrill WCM Date 7/12/77 TA/AGR/ESP, ERupperecht EA Date 7/12/77		B. Funds for the services requested are available TA/PPU, MZozynski Date 8/27/77																																			
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16. For the cooperating country: The terms and conditions set forth herein are hereby agreed to		17. For the Agency for International Development																																			
Signature and date: Title:		Signature: Kenneth A. Milow Title: TA/PPU, Chief Program Div.																																			
		18. Date of Signature 8/19/77																																			

PROPOSAL FOR SUPPORT UNDER
THE AGENCY FOR INTERNATIONAL DEVELOPMENT
INSTITUTIONAL GRANTS PROGRAM

APPLICANT: North Carolina Agricultural and Technical
State University

DATE: August 19, 1977

GRANT TITLE: Small Farmer Technology and Marketing
Analysis for Rural Development

AMOUNT AND TERM

OF GRANT: \$765,600 for five (5) years

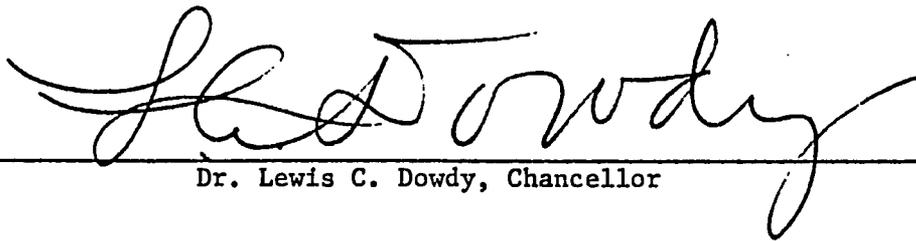
AID SPONSORING

TECHNICAL OFFICE:

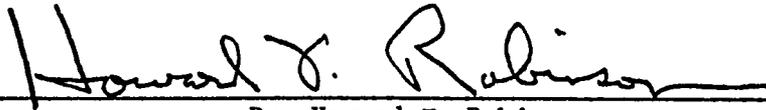
Office of Agriculture Technical Assistance
Bureau

SUBMITTED BY: NORTH CAROLINA AGRICULTURAL AND
TECHNICAL STATE UNIVERSITY

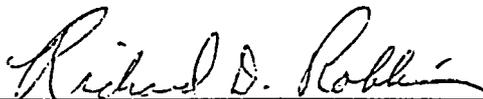
Greensboro, North Carolina



Dr. Lewis C. Dowdy, Chancellor



Dr. Howard F. Robinson
Director of Research Administration



Dr. Richard D. Robbins, Project Director

August 19, 1977
DATE

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PROPOSAL FOR SUPPORT UNDER
THE AGENCY FOR INTERNATIONAL DEVELOPMENT
INSTITUTIONAL GRANTS PROGRAM

I. DESCRIPTION OF PROBLEM

Rural development can be viewed as improvements concentrating on raising the economic and social well being of rural people. Generally, the attention of rural development is now focusing upon the rural poor. One would expect that programs geared to rural development would lead to a reduction in poverty and human misery of the rural poor. To reduce poverty and misery, there must be an increase in productivity and provisions for the poor to have greater access to goods and services.

Rural development must become a major part of a total economic development strategy if large segments of poor are to benefit, since a large portion of the poor in the LDC's reside in rural areas. Many of the past strategies of economic development have focused on increasing economic growth in general. There has been little or no attention paid to the distributional aspects of these programs. It was hoped by most LDC's that increases in the total "pie" would lead to increases in each "slice". Such improvements have come about and fairly large rates of growth achieved in many areas of the world. However, the problem has been that for most of the rural population, the "slice" did not grow anywhere nearly as rapidly as the pie--if it grew at all. Certainly for much of the rural population they became worse off relative to the total, since many projects were geared to the large landholder and those already in the upper income levels. The gaps between the have and the have nots actually widened in many LDC's.

Rural development now will have to focus on increasing productivity and incomes of the rural poor. Rural development strategies must consider the migration of people out of agriculture; population growth and the limitations imposed on resources, technology, and institutions; and, the available production factors that can be mobilized to reduce poverty and improve the quality of life. Rural development will have to be concerned not only with increases in productivity, but also with improved food supplies and diet for a rapidly growing population, health and educational services, construction of adequate infrastructure, adequate housing, and employment opportunities.

The rural poor are found across the world but are concentrated in Asia, Africa, and Latin America. They constitute a large portion of the population of the LDC's. The rural poor have limited access to natural resources. They have limited access to technology and services because of the absence of institutions to sustain higher levels of productivity and in some instances, because of vested interests. Most of the poor depend upon agriculture since a great portion of the poor live in rural areas. In many instances, even for those that possess land, holdings are of insufficient size to generate income above the poverty level; others have to rely on sharecropping. Again, these holdings may be too small to generate adequate income so that many workers supplement income from farm wages; others rely upon wages almost entirely; however, wage rates are extremely low.

The kinds of problems that face the rural poor are varied and many. There are a variety of climate conditions, small holdings by many rural poor, and low wages all of which result in low productivity and incomes.

Problems that face rural development in general are also varied. Not only must rural development be concerned about feeding the present population of the world, it must be concerned about feeding the population of the future. Many estimates have been made as to what the future population is likely to be.

Although these estimates have been varied, there is a consensus that by the year 2000 there will be around 6 to 7 billion people inhabiting the world. This number represents a 50% increase in the present world population. The increase in population means that not only must we feed the present 4 billion people by 2000, we must produce enough additional food to feed 2 billion additional people. Even assuming large reductions in the birth rate, Frank Notestein in his report to the American Assembly projects nearly 5.5 billion people to be fed by 2000, still a formidable task. Most of the population increases will be concentrated in the LDC's; nearly 4.7 billion of the 6 billion will be found in the LDC's. Thus, the LDC's face an extremely acute problem. Many of the countries experiencing rapid population growths have experienced reductions in per capita agricultural production. The LDC's must be concerned about feeding the present population today as well as be concerned about feeding a population nearly twice as large by 2000. When we consider that improvements in the quality of life must also include improvements in the diet, we would have to increase even further food production to meet the needs of increased nutritional levels of the population.

Don Paarlberg, in his presentation to the American Assembly, estimates that there will be sufficient food available to feed the population. The problem is not the availability, but the distribution of the food supplies. Most of the food supplies in year 2000 will be in the developed countries and relatively little in the LDC's. The LDC's lack the necessary foreign exchange to purchase the surpluses that may be available in the developed countries. Paarlberg estimates that to maintain present diets in 2000, grain production in the LDC's would have to increase 2 to 2 1/2 times the present production and to have slight improvements in the diet, an increase of fourfold is necessary. This increase is necessary despite the fact that in many countries, actual production

declined. Still the best long run alternative available to the LDC is to increase its own food supplies.

Increases in the food supply will not come easily. For many countries, a complete turn around in agriculture will be necessary. For many people in these countries, land holdings are very small. If farm size should grow and if these people are displaced from agriculture, there will be a need to create jobs and provide housing and services for those displaced. These activities would require rapid industrialization and a complete development package. Should farm size fail to grow, increased productivity must come forth on the present small holdings.

Whether farm size grows, and it seems doubtful that much growth will be forthcoming, or whether farm size remains the same, rates of increase in agricultural production will have to increase by 4 percent per year, nearly double their historical rates of increase. Further, given that most LDC's lack the foreign exchange to purchase food, the increases will have to come from within the LDC itself.

For the LDC's to achieve the increases in agricultural productivity, the green revolution begun in the 50's and 60's with wheat and rice will have to continue and expand in other crops and livestock. New varieties, new breeds, and new technologies will be required. Management practices that accompany the new technologies will have to be introduced. Economic incentives through prices will have to be sufficient to encourage the adoption of the practices.

As the increases in output are attained, other problems will have to be addressed; transportation and storage will have to be attended to; problems in credit prior to and after harvest will have to be solved; price stability for agricultural products will be important; handling and grading of commodities will be necessary; and adequate and accurate market information will have to be disseminated. Even these problems do not exhaust the list. Increases in

agricultural productivity will depend heavily upon the willingness of the producers to adopt the new varieties, breeds, and management practices. Therefore, an understanding of the social customs, the organization and decision-making process of the rural community will be necessary. Methods and channels of systems that transmit information will need to be improved, and in some cases, developed.

The problems that face the LDC's therefore are many and varied but not insurmountable. The LDC's will need much assistance, even though ultimately they must be responsible for raising their levels of living above present standards. Eventually, they must establish their own institutions of higher learning, infrastructure, marketing channels, and research and development programs. However, in the meantime, those resources not presently available to the LDC's or not yet developed must come from outside. Technical and financial assistance must be available to the LDC's for years to come.

The "New Directions" mandate shifted the priorities of AID to the areas of food and nutrition, education and human resources, and population and health. Benefits from programs under the new focus are no longer expected to filter down to the rural poor, but are expected to have a direct impact on the poor.

A question may arise as to the future of the "New Directions" mandate. One may expect that programs in agricultural production and rural development will continue in the near future. The core of the problem that faces the LDC's is developing analytical frameworks or approaches to the development process that can extend the benefits to those groups; e.g., small scale farmers and landless poor, who make up the rural poor. In the long run, the LDC's themselves will have to be able to analyze their rural development problems and make policy recommendations. The LDC's need to understand how the marketing systems of small farmers operate, particularly methods of assembly, storage, grading and distribution. They need to know whether their land, labor, and capital resources are being used efficiently in production of goods and services. They need to

better understand how agricultural change affects the total economy and how the agricultural sector is affected by growth and change in other sectors of the economy. They need to know if the technologies developed in other countries can be transferred to their farms. They need to know the costs and benefits of changing technology. The farmers in the LDC's need to know new management practices that accompany new technology. An understanding of the community and social agents that affect change is needed in determining the rate at which new technology will be adopted. All of these questions and more are essential in alleviating rural poverty. At the present, most LDC's do not have either the capability or adequate data to answer these and other questions. Policy-makers in many LDC's have recognized the importance of the questions and see the need to develop the analytical capability to answer them.

The shift in priorities revealed a deficit in the supply of professionals within AID and in the LDC's. The LDC's need economists, agricultural economists rural sociologists, and related fields to provide help in solving rural development problems. Missions, and regional bureaus have not had sufficient personnel in the problem areas. Recognizing that the Agency and LDC's have a gap in knowledge and skills, North Carolina A&T, as a part of this grant, will help fill the gaps. North Carolina A&T will also develop, expand, and strengthen its capabilities to answer the important questions raised above. Its faculty would be available to the Agency, to the LDC's, to contractors, and to other donors as the need arises to assist in solving rural development problems.

This proposal, therefore, is an attempt to fill the gap alluded to above. The grant would be of a multidisciplinary nature involving economics, agricultural economics, and rural sociology, and to a lesser extent, agricultural and extension education. The purpose of the grant is to increase the competence of our institution in assisting LDC's in planning and executing programs and projects concerning their economic and social development. The grant will be

directed towards developing programmatic capabilities required by AID; such as, project identification, design, analysis, implementation and evaluation.

With the assistance of this grant, the University will be able to develop its capability to provide technical assistance to LDC's in the areas of small farmer technology and marketing analysis. The grant will fund activities; such as, faculty training with a rural development focus, research and dissemination of research results, curriculum revisions that add economic development aspects, advisory and consultation activities, new courses, seminars, and expansion of library holdings in economic development.

The purpose of this grant, Small Farmer Technology and Marketing Analysis for Rural Development, is consistent with the purposes and objectives of North Carolina A&T State University. The mission of the college, as stated in the initial legislation, was the following:

"That the leading object of the institution shall be to teach practical Agriculture and the Mechanic Arts and such branches of learning as related thereto, not excluding academic and classical instruction."

North Carolina A&T State University was established, therefore, as one of the Sixteen Land Grant Colleges of 1890. It has traditionally had the responsibility of teaching agriculture and other technical educational thrusts and to solve the needs of blacks in the state. By our very nature then, our activities have been directed to problems of the rural poor and limited resource farmers.

The grant will not provide sufficient funds to build a broad institutional capacity in international economic development. However, these funds will serve as a solid foundation upon which the University will be able to grow and develop. Faculty and students will be exposed to problems of the LDC's and will gain experience by research and travel overseas. The expansion of other development activities by North Carolina A&T will be made much easier with this grant. Furthermore, as the institution develops its capabilities,

AID will be able to utilize them in problems relating to small farmer technology and marketing.

II. DESCRIPTION OF GRANTEE

North Carolina A&T State University is a part of the Sixteen-Campus University of North Carolina System. As such, it receives funding from the state of North Carolina for its teaching activities. In addition to state funds, it receives numerous research contracts and grants from private and public sources, its budget now approaches \$18 million annually from all sources.

North Carolina A&T State University is easily accessible by automobile, railway lines, commercial bus and by air carriers. Both interstates, I-85 and I-40, lead in and out of the city. Southern Railway has a terminal here as does Continental Trailways and Greyhound Buses. The regional airport is serviced by United, Delta, Eastern and Piedmont Airlines. Air freight is also available with these airlines as well as Federal Express.

The University is basically a single-campus institution. The University campus is comprised of modern physical structures, all thoroughly maintained at the highest level of efficiency. The University is located on land holdings in excess of 181 acres and valued in excess of \$160 million.

The University has a farm that consists of about 700 acres of farm land according to land survey maps in the School of Agriculture. In addition to the production of crops and livestock, space is made available for conducting research projects which complement the academic program.

The Computer Center is equipped with a Control Data Corporation Medium Scale General Purpose Computer System 3300 operating under Master Version 4.1. The current memory size of 80 K 24-bit words permits a user to run a job not exceeding 38.5 K words or 77 quarter-pages including the compilers and/or the

assemblers after reserving 37.5 K words for the master. The input and output from the computer is performed by a high-speed card reader, a card punch, and high-speed three magnetic tape drives and three magnetic disk drives both medium speed. To control the job flow through the computer system, a console is also available.

The Center currently supports compiler languages Algol, ans Cobol, ANSI Fortran, and the assembly languages--Macro X, APL, and TECO. The utilities SOS, ISAM, RUN OFF, SORT, and tape/disk are also available.

The Center has a version of scientific subroutines package installed on-line and available to all Fortran users for mathematical and statistical applications; also, the Center has installed Minitab II, a general purpose statistical computing system, similar to Omnitae, designed especially for students and researchers who have no previous experience with computers. The Minitab II reference manual is available upon request from the Center. All student/faculty developed application programs are invited for building a program library.

In addition to the Computer Center, Merrick Hall houses a terminal center connected by lease with an IBM 370/165 Computer with TUCC, Research Triangle Park, North Carolina. Equipment available in Merrick Hall includes five (5) IBM 029 punch card machines, a PE 8001 Batch Terminal, and Decwriter II Hewlett Packard 2000A. Programs may be written by the user or one may use "canned" programs; such as, TSAR or SPSS.

During the spring semester of the 1975-76 academic year, 5,241 students were enrolled. Graduate students represented 16 percent of the student population. Approximately 20 percent of the students were enrolled in teacher-education programs. The current enrollment represents more than a 100 percent increase since 1950. Significantly, the number of students enrolled in the School of Agriculture during the fall semester of 1976 was 456.

The University faculty has increased as the student enrollment enlarged. Qualifications of the faculty have shown considerable improvement during the last ten years. At present, the faculty consists of 310 members; nearly one-half of the teachers have an earned doctorate degree. Faculty members are encouraged through financial aid to improve their professional development; the results are quite notable.

The University is fortunate in having major academic and research activity in areas supportive of rural development. Our competencies include areas such as Economics, Agricultural Economics, Rural Sociology, Anthropology, Agricultural Education and Agricultural Extension.

The Department of Economics offers the undergraduate major in Economics and Agricultural Economics. The Agricultural Economics major has the Agricultural Science and Agri-Business options. The Agricultural Science option is designed for graduate study, while the Agri-Business option concentrates on immediate post-graduate employment in government and industry.

There are fourteen (14) faculty members in the Department--six (6) with the doctorate in Agricultural Economics including specialities in Economic Development, Human Resource Development, Marketing, Resource Economics, and Manpower. Major areas of concentration in Economics include Econometrics, Labor Economics, and Economic Thought. Five (5) faculty members have doctorate degrees in the group and three (3) have completed course work at the doctorate level and are writing dissertations.

The interest of the faculty in rural development is reflected in the experience cited above and is related to what they are involved in domestically.

Course work emphasis in rural development deserves recognition at this point. The Agricultural Economics curriculum has six (6) courses in Rural Sociology that are not currently being taught due to lack of staff and program development. These courses could readily be revived and related to rural development. The Economic Development course in General Economics is related.

to rural development. The entire Agricultural Economics curriculum is related to rural development. The proposed graduate program in Agricultural and Applied Economics has a concentration in Economic Development including some emphasis in rural development.

Also the Transportation Institute's research and thrust has been centered around the rural area. Most of the past research in transportation has been oriented to transit and people movement in low density areas. Current research proposed has shifted to physical distribution and carrier management.

A transportation major administered by the Department of Economics is being implemented. It has been approved by the North Carolina University System, the Chancellor's and Vice-Chancellor's offices of North Carolina A&T State University, and the Dean's office. Monies are available to hire two people initially. They are being recruited now. This major is transit and carrier oriented.

Prior to 1975, rural sociology at A&T had been generally characterized by one or two courses per semester. However, rural development as a tool has received considerable attention by a number of experienced agricultural economic researchers. During a period of nearly two years, the application of sociological theory with a rural emphasis has been effectuated through the auspices of the North Carolina Agricultural Extension Service. Even though the functional aspect of these efforts may best be categorized as applied sociological endeavors, they have primarily involved out-of-classroom instruction and limited research efforts in selected rural communities in North Carolina. The two staff persons, who were trained as rural sociologists at Cornell University, are presently employed as community resource development specialists by the A&T component of the Extension Service.

North Carolina A&T State University also has an anthropologist employed full-time in the Department of Sociology and Social Service in the person of

David M. Johnson. He received his Ph.D. in Anthropology from the University of North Carolina at Chapel Hill in 1972 in Cultural Anthropology, with a minor in Mathematical Methodology. He currently teaches courses in Introductory and Advanced Social Statistics, Introductory Anthropology, Cultural Anthropology, and Nonverbal Communication.

It is essential for staff persons in economics, rural sociology, and sociology to devise models for domestic development, which also have implications for development in third-world nations.

Generally, these models depict the elements that are essentials for identifying the structure of community power and decision making, reactive subgroups, social participation, delineating community boundaries, various factors to consider when defining a community, structure and availability of community facilities and services, as well as number of independent and intervening community variables such as racial composition, sex of household head, age, income characteristics, number of households and stage of household cycle and the like.

International experiences by our faculty coupled with frequent and continuous domestic activities of both a theoretical as well as applied nature lend credence to efforts at A&T to approach such problems and issues whether they are domestic or international in scope from a multidisciplinary perspective. It has been A&T's efforts to better coordinate such resources, both human and physical, that has contributed to a general positive atmosphere of progress leading to the abatement of many human sufferance problems throughout the worldcommunity.

Our past experience in both foreign and domestic rural development activities have been rich in priority to the economically, socially, and culturally deprived peoples of our nation and the world. The main thrust of domestic activities has been in our programs of Agricultural Education,

Agricultural Extension and the Department of Economics and Agricultural Economics.

Past work in rural development for most faculty members of the Department of Economics has been mostly teaching and research in areas directly or indirectly related to rural development. Several of the staff members: Robinson, Evans, Coley, and Robbins, for example, have previously worked in rural areas in extension; vocational agricultural education; veterans as farm training supervisors and in other capacities. Further, several faculty are expatriots from developing countries.

Foreign involvement is reflected in several staff persons who have had experience in overseas assignments and by our foreign student population. Evans spent 22 months in East Africa teaching, developing research projects and supervising M.S. candidates in Agricultural Economics. Khan and Robbins supervised all the research done by the AID economic interns during the five (5) years A&T administered the AID program. Coley taught the Economic Development class for the interns. He visited both the Caribbean area and Niger, Africa as our resource person on two different consulting teams. Kidder spent one year in India teaching and researching in labor and manpower problems. Morse spent 2 1/2 years as Visiting Professor of Economics, Universidad Centro-Americana Jose Simeon Canas, San Salvador, El Salvador. Also foreign rural development experience is reflected in the several staff members who are from foreign countries: Marhatta, Nepal; Chen, Tiawan; Khan, Pakistan; and Jeong, Korea. During the 1976-77 year, approximately 150 foreign students were enrolled from Africa, Asia, and Latin America.

North Carolina A&T State University is committed to long term involvement to the development of the LDC's. Evidence of this fact is shown by its previous assistance to Uganda in developing a graduate program in marketing, to Tanzania in training agricultural manpower, and to AID in training minority

undergraduate students. Furthermore, many of our faculty have served as team members with AID contract programs in Asia, Africa, and Latin America, in addition to the ones mentioned above. The commitment of the University is summed up by the following statements from our Chancellor:

We see the need for greater involvement of this University in helping overseas institutions, (private, educational, governmental, voluntary) especially in Central Africa to develop and strengthen their delivery systems of human service. In view of the apparent need for improved research in economic, social, technical, and agricultural sciences, and the gap between what research there is and its dissemination to the people in a usable way, this University, with readiness to serve, would want to improve its capacity to assist Lesser Developed Countries in their rural development plans where appropriate linkages can be developed. To assist in rural development plans is a tradition and a commitment of North Carolina A&T State University. The commitment to overseas development is strong also and is relevant to the extent the University has the capacity and financial resources to respond effectively.

North Carolina A&T State University is willing to make the following contributions to the 211(d) grant activities:

- (1) The University is willing to provide office space, furniture, and other essentials for maintaining offices for all faculty and staff employed by the grant.
- (2) Other services such as utilities, except phone and fiscal services (payroll, accounting, purchase orders, etc.) will also be provided.
- (3) Computer facilities in the Computer Center (except the terminal) will be made available for instructional purposes for the 211(d) grant.

North Carolina A&T State University envisions the long term involvement of its faculty and staff in economic development. Arrangements and linkages can be developed with AID/Washington and other schools to continue participation in workshops, seminars, faculty exchange, and summer employment opportunities after the termination of the grant. Such activities will allow our faculty to remain capable for years to come.

The University also hopes that new faculty supported under this grant will remain. As the number of students interested in economic development and

rural sociology increases, new faculty positions will be added to the University. Thus, the respective departments involved will be able to absorb these faculty as a result of growth.

North Carolina A&T State University is aware that many philanthropic organizations are extremely interested in the problems of the LDC's for humanitarian reasons. Assistance from such organizations as Ford and Rockefeller Foundations, World Bank, and FAO, as well as technical assistance programs with AID, will be sought during and after the 211(d) grant. These activities will provide for the maximum utilization of the capabilities developed at North Carolina A&T State University.

The management of the grant expenditures and contract-related documentation of activities will be accomplished by North Carolina A&T's Office of Research Administration under the direction of the Vice-Chancellor for Fiscal Affairs. Operationally, all grant activities will be carried out under the leadership of the Grant Director who will be responsible directly to the Dean of the School of Agriculture. The Director is Richard D. Robbins, Associate Professor of Economics. The grant will be organized as an activity in the School of Agriculture in cooperation with the School of Business and Economics, and Department of Economics. Other departments; such as, Agricultural and Extension Education and Sociology would form the interdisciplinary academic aspects of this grant. An advisory committee, consisting of members from the cooperating departments and the schools, will be appointed to advise and guide the Director in pursuing and implementing activities under this grant. However, it is not expected that a formal multidisciplinary center or institute would be formed by the University. The Grant Director in cooperation with the Deans of the School of Agriculture and the School of Business and Economics would determine whether the activities planned are consistent with the grant objectives.

The Grant Director will serve as the institution's contact with the GPO in TA/AGR/ESP. He will work with the GPO in developing contacts with regional bureaus and mission staffs. The Grant Director will be responsible for submitting annual reports of the grant activities. The Office of Research Administration and the Office of Contracts and Grants at North Carolina A&T State University will submit the required fiscal reports to the Agency's contracts office.

III. PURPOSE, OBJECTIVES, AND ACTIVITIES

A. Purpose: The purpose of this grant is to develop North Carolina A&T's response capability and multidisciplinary capacity to assist LDC's in the areas of Small Farmer Technology and Marketing Analysis for Rural Development. The ultimate goal of this project is to assist LDC's through AID and other donors, to develop their capacity to analyze problems in their agricultural and rural sectors, thus leading to better program choices for enhancing the quality of life of the rural poor.

As the University develops its capability and strengthens its capacity, its services would be available to contract with AID, other donors, and LDC's for utilization. Services will be provided in the areas of Small Farm Technology, Marketing and Distribution and will focus on project design, implementation, and evaluation. Grant funds would be used to develop the institution's response capability using a multidisciplinary approach involving economics, agricultural economics, rural sociology and, to a lesser extent, anthropology, agricultural and extension education, technical agriculture and related fields as appropriate, to analyze problems in such areas as Small Farmer Technology and Marketing.

In general, grant funds would be used to finance the following major objectives/outputs:

1. Research (Expanded Knowledge Base) in the crucial problem areas facing the LDC's.

2. Education and Training Activities to develop capabilities and strengthen faculty.
3. Advisory and Consultation Services to AID, missions, LDC's and other donors.
4. Information Capacity to increase library holdings of pertinent economic development literature and journals, and publication of research results.
5. Linkages and Networks with other institutions--domestic and foreign.

B. MAJOR OBJECTIVES/OUTPUTS: During the life of the grant, the University will allocate its funds to develop and strengthen its response capabilities by conducting activities with the following expected outputs:

1. Research: The research program at North Carolina A&T will emphasize problems of the small scale producer and the rural poor in LDC's. The major areas of focus are Small Farmer Technology, Marketing and Distribution.

i. Small Farmer Technology: The activities focusing on Small Farmer Technology would be multidisciplinary using economics, rural sociology, and other social sciences to focus on problems in the LDC's. The research focus will center on problems such as the transferability of technology and changes in production practices. We plan to consider the community and social structure, and its role in bringing about change. Some attention will be given to the economic as well as non-economic barriers to change; e.g., price stability, market structure, soils, and topography factors that affect the rate at which technical change occurs. A significant problem area is the dissemination of information relative to changes in production practices. Improvement can occur only if the small scale farmer is aware of such changes. Thus, some attention will be placed on extension and information systems, and the roles they play in economic development.

ii. Marketing and Distribution: The marketing and distribution systems are crucial aids in solving the long run food problems in the LDC's. Even if adequate food production is forthcoming, without adequate marketing channels,

storage facilities, and distribution facilities, needed food will not flow from areas of food surpluses to areas of food shortages. The transportation and communication systems are extremely important in marketing. Without transportation, goods will not reach the cities, without adequate information, farmers will not be able to respond to price changes, and without adequate storage, post harvest losses will be large.

The research under this component will focus on the transportation, storage, and communication systems. Institutional problems in marketing would also receive some attention; especially problems on credit, cooperatives, assembly and distribution systems, and the community and social structure. Specific problems in market functions will also have to be addressed: standardization and grading, price stability and space distribution of goods. Specific studies could include feasibility studies to determine the costs and returns to investment in storage facilities or to investment in farmer training for grading of commodities. Another possible topic would be a social and economic analysis of information systems (for price, credit, and market news) performed by a multidisciplinary team. Research on these problems would be applied in nature and would assist the small farm producer in raising his level of living.

The grant will fund release time for faculty research as well as travel where on-site research is relevant. It is estimated that approximately 17 man-months of faculty release time per year would be funded; a total of 83 man-months for the life of the grant.

Approximately four research studies would be completed and results published by the end of the project. At least two of these studies would be multidisciplinary.

Research activities under this grant will not begin prior to the spring semester 1978, and most likely the summer of 1978. Adequate lead time is

necessary for department chairpersons to hire replacement personnel for those faculty given release time for research.

2. Education and Training: North Carolina A&T State University proposes several activities to improve its response capability under the education and training component of this grant. These activities are crucial to developing long term response capabilities.

1. Curriculum: One of the important parts of any University is the curriculum available to its students. Most students weigh heavily the curriculum offered when they are selecting their choice of schools. North Carolina A&T State University would like to attract students who are interested in the economic development problems of LDC's. Therefore, as a part of this grant, the University proposes to expand and improve its course offerings to graduate and undergraduate students in economics, agricultural economics, and rural sociology as they focus on rural development. Approximately five courses in economics, agricultural economics, and/or rural sociology will be revised to reflect rural development problems in LDC's. In addition, approximately two upper-level courses in agricultural economics and/or rural sociology focusing on aspects of economic development will be introduced. It is expected that all course additions and modifications will occur during the first two years of the grant.

ii. Student Support: Many students entering college need some kind of financial assistance to defray expenses. Furthermore, North Carolina A&T must compete with other institutions for the best caliber students. Therefore, we propose that some funds from grant sources be used to provide scholarships, fellowships, and assistantships to deserving students. The student aid would be used to support both graduate and undergraduate students. All students would be expected to follow an interdisciplinary training program focusing on economic and rural development of LDC's. The graduate students could work

toward a Master's degree culminating in a thesis on a rural development problem in an LDC. Until the A&T graduate program for an M.A. in Agriculture and Applied Economics is implemented, these funds will be used to support students in graduate programs at other universities. When this occurs, a cooperative agreement will be negotiated between North Carolina A&T and the other university. If the graduate program in applied economics is approved by the state of North Carolina, approximately 15 students would be expected to receive two years of support by the end of the grant period; however, because of added costs, fewer graduate students could be supported at other universities.

The undergraduate component of this grant will focus on advanced undergraduate students. However, if a student demonstrates outstanding potential, consideration will be considered for aid in the earlier years. All aid will be coordinated through the University's Financial Aid Office. The grant will provide support of approximately \$500 per year, with additional funds available through the Financial Aid Office, if the student qualifies. An estimated 25 students would receive an average of two years of support under this grant. These students would also serve as a potential source of students for the graduate component.

iii. Faculty Training: The faculty of the Economics Department, one of the major departments involved in the grant, is immensely qualified in their respective fields. During the 1976-77 school year, there were fourteen (14) teaching faculty; eleven (11) with Ph.D.'s in Economics and Agricultural Economics, and three (3) in the dissertation state of their Ph.D. However, staff in Rural Sociology is lacking. Further, most of the faculty lack the experience and/or emphasis in rural development of the LDC's. The faculty training component of this grant is designed to overcome these limitations. The grant will provide release time and/or summer time funds for the faculty to participate in graduate or post-doctorate study in areas of economic and rural

development. It is estimated that release time of five (5) months each year of the grant will be used for this purpose.

The first faculty members to participate in study leave is expected to begin the summer or fall of 1978. During the fall of 1977, an application blank will be designed and forwarded to the relevant members of the faculty. Completed applications will be reviewed during the spring of 1978, and awards made. The applicant and his/her department chairperson will be notified that funds were available, and the request for leave initiated. Department chairpersons will need adequate lead time to hire replacement faculty.

In addition to training for our present faculty, funds would be available to hire additional faculty members. It is estimated that two new faculty would be supported in part by this grant to conduct research and teach economics, agricultural economics, and/or rural sociology.

iv. Seminars and Workshops: As a final component to the education and training objective, the University proposes to develop a seminar series and participate in workshops. The University sees seminars as a very useful learning technique. A series would be held on a specific topic area each year and would be composed of three seminars per year. In addition to the series, an additional seminar would be held on another current development topic.

Grant funds would also be available for faculty to travel and participate in workshops, conferences, and professional meetings where relevant economic development issues are being discussed. Should grant funds be sufficient or other funds become available, a workshop could be held at North Carolina A&T. Such a workshop would focus on research findings and problems covered under the research objective of this grant.

3. Advisory and Consultation Services: The ultimate goal of this grant is to develop a response capability to assist LDC's in developing their capacity to analyze their problems in agricultural and rural development. To

achieve this goal, North Carolina A&T expects to make faculty available for advisory and consultation services to AID/Washington, AID missions, LDC's, and other donor countries and organizations, in such areas as is the focus of this grant.

Grant funds are available for the University's faculty to participate in AID conferences on design, planning, and evaluation. The University expects AID to assist in providing opportunities for advisory and consultation services. Information on workshops, conferences, and available opportunities in the field will be needed from AID so as to make our faculty aware and plan for their participation. Approximately nine months of release time will be supported over the life of the grant. The scheduling of release time is concentrated in the third and fourth years of the grant as opportunities become clearer and staff response capability becomes stronger.

4. Information Capacity: North Carolina A&T State University recognizes the important role that a good library plays in the development of faculty and students. The University plans to utilize some grant funds towards the expansion of its library in economic and rural development. Funds will be expended to purchase books and to subscribe to journals and periodicals. In addition, funds will be available to publish and disseminate the research results of faculty and graduate students supported by this grant. It is estimated that about 100 volumes per year dealing with development topics will be acquired. In addition, about three or four journals would be ordered.

5. Linkages and Networks: North Carolina A&T State University plans to establish and expand its domestic and foreign linkages and ties with those institutions which share a common interest in rural development in LDC's. Published seminars and research publications will be disseminated to domestic and foreign institutions as appropriate. Information exchanges and possibly faculty exchange activities with other institutions will be pursued.

A special effort will be made to develop ties with other minority institutions interested in economic development. While North Carolina A&T is awaiting approval of its Master's program, minority schools; such as, Virginia State, Howard University, and Southern of Baton Rouge that offer graduate training in economics will be contacted for placement of graduate students supported by this grant. Other minority schools that have or have had 211(d) grants will be contacted to examine areas where complementary actions may be taken. Additional ties will also be sought with other colleges and universities with training programs and interest in attacking the problems of LDC's.

The University will also attempt to develop linkages with AID/Washington, and other donors. Linkages with the various bureaus would permit maximum utilization of capabilities developed under the grant. It would also permit exposure to similar problems in the various parts of the world.

Linkages will also be developed with one or more developing countries. While a specific country or area has not been selected, consideration is being given to all sections of the world. We prefer an English speaking country if we develop ties with Asia or Africa because there are no funds for language training. Possible countries in these two continents would include Ghana, Liberia, Nigeria, Tanzania, Nepal or Pakistan.

The language training problem would not be as great in the Caribbean or Central America. Travel expense may not be as great to these countries, and some language training could be provided. Possible countries in these areas would include Haiti and Beliza.

At the present, we are providing some assistance to Tanzania in a consortium contract with West Virginia University. It may be possible, therefore, to expand our present linkage with Tanzania as well as develop ties with another country. Upon selection of the specified country or countries, visits will be made to help firm the linkage.

The activities planned for the first few months include the usual start up activities; such as, hiring secretarial services, ordering supplies, etc. Initially, activities related to developing capabilities will focus upon recruiting students, developing linkages with domestic institutions and recruiting additional faculty. In addition, revisions of the rural sociology course will begin, the advisory committee appointed, and plans for providing study leave for faculty will be made. With the cooperation of AID, we will plan opportunities for attending AID seminars and workshops, and preliminary discussion can be held on faculty exchange and work-study opportunities for students. Finally, other activities would include development of a policy for funding research under this grant, and arrangements for the first seminar series will be made.

C. CRITICAL ASSUMPTIONS: Certain events are beyond the control of the University. It is necessary, therefore, that certain assumptions be made relative to the achievement of stated outputs. These critical assumptions are listed below:

1. There exists a pool of professionals, economists, agricultural economists, and/or other social scientists who would consider employment at North Carolina A&T and would pursue teaching and research on problems in the developing countries.
2. Graduate and undergraduate students can be recruited who are interested in studies in international economic development.
3. AID will assist North Carolina A&T in developing linkages with LDC institutions, and in identifying opportunities for utilization of faculty members in advisory consulting activities.
4. Professionals interested in presenting lectures and seminars on topics relevant to the focus of this grant will be available to North Carolina A&T State University.
5. Data are available or can be obtained on critical research problems in the LDC's and problem areas selected.
6. Domestic and international institutions are interested in developing linkages with North Carolina A&T State University.

D. FINANCIAL PLANS: Table I presents estimated expenditures by input and output categories. As critical assumptions change or the development needs are altered, changes in expenditures may become necessary.

TABLE I: ESTIMATED BUDGET

<u>Inputs</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total Grant</u>	<u>Other*</u>
1. Salaries and allowances	\$100,900	\$109,000	\$109,100	\$113,500	\$107,100	\$539,600	\$414,334
2. Student support	11,500	23,000	31,500	28,500	8,500	103,000	25,000
3. Travel	19,500	19,500	15,500	16,000	12,000	82,500	
4. Supplies and materials	2,500	2,500	2,500	2,500	2,000	12,000	
5. Publications	500	500	1,000	1,000	500	3,500	
6. Library	2,500	2,500	2,500	2,500	2,500	12,500	
7. Workshops and seminars	<u>2,500</u>	<u>2,500</u>	<u>2,500</u>	<u>2,500</u>	<u>2,500</u>	<u>12,500</u>	
TOTAL	\$139,900	\$159,500	\$164,600	\$166,500	\$135,100	\$765,600	\$439,334

*The University would contribute overhead valued at \$304,334 and non-grant salaries for one full-time equivalent person valued at \$110,000. Undergraduate students would be eligible for financial assistance through the University's Financial Aid Office to supplement their 211(d) assistance, estimated value--\$25,000.

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<u>Outputs</u>	<u>Man Months</u>		<u>Man Months</u>					
1. Research	17	\$ 42,000	17	\$ 48,600	\$ 51,500	\$ 54,500	\$ 50,000	\$246,600
2. Education and Training	257**	82,500	185	99,300	99,400	96,800	76,300	454,300
3. Advisory capacity	1	3,400	1	4,100	9,700	11,200	5,300	33,700
4. Linkages and networks	***	9,000		4,500	500	500	500	15,000
5. Information capacity	***	<u>3,000</u>		<u>3,000</u>	<u>3,500</u>	<u>3,500</u>	<u>3,000</u>	<u>16,000</u>
TOTAL		\$139,900		\$159,500	\$164,600	\$166,500	\$135,100	\$765,600

**Includes 72 and 144 months of student training for Year 1 and 2 respectively

***Included elsewhere

IV. UTILIZATION

There are many ways the Agency can assist in the development and utilization of capabilities of North Carolina A&T State University. Grant funds are available to release University personnel so they could attend AID project design, logical framework, and other appropriate seminars to be conversant with AID's terminology and systems. Grant funds will also be used to permit University faculty to develop internationally so that faculty may become involved in actual project identification and design activities. The advisory activities are expected to be gradual during the first two years, but they will be done on a preliminary level. However, as response capabilities develop, advisory and consultation services will increase rapidly. Linkages will be developed domestically and internationally, so that other donors and contractors will be able to utilize our capabilities. The design, implementation, and publication of research will permit the University to develop and strengthen its response capability.

There are several ways in which this grant can be tied into other AID financial activity. Some already mentioned include: work-study arrangements, faculty exchange, and the IDI programs. In addition to these activities, contracts will be sought to provide technical assistance to LDC's who have problems in the areas of the focus of this grant. Furthermore, North Carolina A&T faculty would be available for short and long-term assignments as contract team members for AID/Washington and other AID/donor financed projects.

The University does expect AID/Washington to assist in the utilization of capabilities developed by this grant. North Carolina A&T expects AID to notify the regional bureaus, AID missions, relevant contractors, and other donors when requested of the developing capability. Contacts can then be made which would provide for maximum utilization of developed strengths.

AID is also expected to assist in establishing linkages with one or more of the LDC's. AID can assist in serving as the liaison between AID missions, LDC institutions, and North Carolina A&T State University. In addition liaisons may be expanded with some of the countries that North Carolina A&T has provided some assistance; e.g., Tanzania. It may be less difficult to expand these linkages than to develop new ones, especially if the problem areas addressed in this proposal are crucial to one of these countries.

V. EVALUATION AND REPORTING

As is true for any project, some methods of evaluation and reporting are necessary: (a) to determine if progress toward stated objectives is made; (b) to determine if such progress is within the framework of the grant purpose; and, (c) to determine how much progress has in fact been made. North Carolina A&T will plan periodic reviews, reports, and evaluations to monitor progress made toward its objectives/outputs. Such activities would include the following:

1. End-of-semester reports on students to determine grades and progress toward degrees.
2. Quarterly progress reports and a written final report will be required by faculty given release time for research.
3. Faculty members on study leave will be required to report at the end of each semester on courses, grades, and/or research activities.
4. Faculty members attending seminars, and developing linkages will be expected to make written reports upon return as appropriate.
5. Annual reports will be prepared to summarize activities and to report magnitudes of outputs; such as, number of students supported and/or completing programs, number of books and journals ordered, seminars held, courses revised, etc.

Internal reports will serve as the source of data for making the annual report to AID. The annual report to AID will reflect movement towards developing capabilities. Accomplishments and magnitude of outputs attained during the year will be included. In addition, changes in critical assumptions that

alter the possible attainment of an objective/output will be included. Internal reports will assist the Director and the Advisory Committee in evaluation of the progress made toward increasing capabilities in rural development. Such reports will also be extremely useful in planning and preparing the two-year review of project design, and the four-year comprehensive review.

A detailed work plan for the first two years will be developed. The work plan will serve as a guide for the activities of the project. As changes in the work plan become necessary because of changes in critical assumptions, the work plan will be modified and forwarded to the GPO.