

A PROPOSAL

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To

THE DEPARTMENT OF STATE  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Institutional Grant Section 211(d)  
Washington, D.C.

18p.

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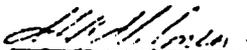
EXPANSION OF COMPETENCY IN THE DESIGN AND EXECUTION OF RUMINANT LIVESTOCK  
DEVELOPMENT PROGRAMS FOR THE TROPICS: WITH EMPHASIS ON DESIGN AND  
ORGANIZATION OF SYSTEMS TO INTEGRATE TECHNOLOGICAL INFORMATION  
AND DISSEMINATE IT ALONG WITH NEEDED PHYSICAL INPUTS

From

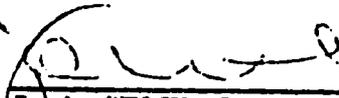
TUSKEGEE INSTITUTE  
School of Applied Sciences  
DEPARTMENT OF AGRICULTURAL SCIENCES  
and  
CARVER RESEARCH FOUNDATION OF TUSKEGEE INSTITUTE  
Tuskegee Institute, Alabama

Submitted by:

Date June 8, 1972



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H. K. LOGAN  
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**FINAL PROPOSAL FOR SUPPORT**  
**UNDER THE**  
**AGENCY FOR INTERNATIONAL DEVELOPMENT**  
**INSTITUTIONAL GRANTS PROGRAM**

**Applicant** : Tuskegee Institute, Tuskegee Institute, Alabama 36088

**Date of Application:** June 8, 1972

**Title** : Expansion of Competency in the Design and Execution of Ruminant Livestock Development Programs for the Tropics:  
With emphasis on design and organization of systems to integrate technological information and disseminate it along with needed physical inputs.

**Duration** : Five years from date Grant

**Amount** : \$500,000

Summary

This proposal is one of four which would enable recipients to improve their capabilities to assist in designing and executing livestock development programs, in the Tropics, in which inputs from major disciplines would be coordinated. This proposal would enable Tuskegee to improve its capability to assist in the design and organization of delivery systems adapted to specific social and physical environments. Systems would deliver integrated technological information as well as physical inputs to the various points in the livestock economy where needed.

The other three proposals are from Texas A and M University for breeding and disease control; Purdue University, for systems analysis of the livestock sub-sector of the economy; and University of Florida, for livestock nutrition and management, utilizing forages. These proposals have been developed in collaboration among the four universities, each building on well-established programs, would be executed by coordinated plans of work and activities and by collaborative efforts where appropriate.

## I. INTRODUCTION

A. Ruminant livestock convert into high quality protein for human diets grass, cereal crop residue, and by-products from processing that have either no value or reduced value in other uses. These products are prevalent in the tropics and in many cases are produced on land that cannot be used for cereal production. Livestock are both a source of food for the general population and a source of employment for large sub-sectors. In some cases entire societies live directly from livestock.

Livestock play important roles in economies that range from subsistence to highly developed. As economic development occurs, the demand for livestock products increases in contrast to the demand for many crops which decrease as consumers can afford better diets. For this reason, livestock could also become a stable earner of foreign exchange in some Less Developed Countries, (LDCs). Finally, progress in crops production, which in the last decade has vastly outstripped progress in livestock production, is freeing up land for livestock grazing and producing surpluses of cereals over human needs which can be used for livestock feed.

This proposal is one of four for activities that would explore the livestock industry in LDCs from a total system view point, on the assumption that piece-meal attacks on a complex problem (breeding, nutrition, disease control, or credit) have been inadequate. The problem is solvable. The primary objective of this set of grants is to strengthen the capabilities of four U. S. universities to identify opportunities for significant livestock development and to design programs to overcome these constraints by an integrated multidisciplinary team approach.

## II. RATIONALE OF THE COOPERATIVE PROGRAM:

The rationale for the linkage of these four U. S. institutions under 211 (d) grants is to consolidate certain basic expertise in several disciplines related to tropical livestock development and to enable each institution to strengthen its capability to respond to LDC's needs. To assure a team effort, the four universities are presenting a joint plan of action. This common effort will be further strengthened by TA/AGR participation in planning and review meetings of the consortium. Specific objectives of this program are as follows:

1. At Texas A & M University ~~the~~ grant will provide funds to develop competence for research and training in tropical animal agriculture related specifically to:

a. Identifying jointly with other members of the consortium, the geographical location(s) for the problem setting(s) for an interdisciplinary approach to the analysis of the constraints and to opportunities for development of the ruminant livestock industry; increasing capability to overcome these constraints to livestock development in that location and;

b. working to increase capability restraints insofar as these stem from deficiencies in animal breeding and health programs. The Animal Science Department will improve its competency relating to livestock breeding and selection as a component of livestock production and marketing in LDCs. The Institute of Tropical Veterinary Medicine will likely need to increase its knowledge and capability in the field of tropical diseases with specific emphasis on conditions which contribute to low levels of production. Both departments will utilize these competencies in a systems approach to a tropical livestock industry.

2. Tuskegee Institute currently has a strong integrated program in rural sociology, animal health and livestock production with considerable experience in tropical areas abroad. The grant will provide funds for working jointly with other consortium members in selecting the location(s) for the problem setting(s) and in identifying the forces which deter livestock development in that setting. Funds will also be used to increase the Institute's expertise in overcoming these constraints, particularly where these are of a sociological nature, and to strengthen its expertise in integrated livestock systems approaches to research, and technical assistance programs.

3. At the University of Florida ~~the~~ grant will provide funds for cooperating with other consortium members in determining a geographical focus for the problem, in identifying the bottlenecks to livestock development and particularly where these fall into the area of animal nutrition the funds will be used to find ways to overcome these deficiencies. In this way the University of Florida's competence in working in the area of animal nutrition, with special reference to tropical feeds and forages, will be enhanced. Current training within the Center for Tropical Agriculture at the University and abroad will be strengthened. An ongoing AID supported program to collect data from laboratories in Latin America on analyses of feeds and forages also is likely to be enhanced.

4. At Purdue University ~~the~~ grant will provide funds for working jointly with other members of the consortium in choosing the physical location(s) for the problem setting(s) in identifying possible constraints to ruminant livestock development in that setting and for studying how to overcome these restraints. Moreover, the grant will provide funds for improving the capability of the Agricultural Economic Department, to make an economic analysis of alternative ruminant livestock systems and to develop a systems analysis approach for

identifying major constraints to the production and marketing of ruminant livestock. The systems approach may be utilized in establishing priorities for research and other requirements for overcoming these restraints.

### III. THE COOPERATIVE PROGRAM:

The four universities already have established institutional commitments to agricultural programs in developing nations. The four universities have agreed that it is to their advantage, as well as to the benefit of the U. S. Foreign Assistance Program, to cooperate in the development of an approach to research and technical assistance focused on ruminant livestock systems for the wet/dry tropics. To achieve this objective within the limitations of available resources, they propose, during the five year period, to engage in interdisciplinary and interinstitutional activities such as:

1. To develop a staff corps within each university structure that will:
  - a. Identify viable projects aimed toward understanding management requirements and systems in tropical animal agriculture;
  - b. Provide for an interchange of staff among the cooperating universities to develop integrated, functional programs applicable to tropical animal agriculture development;
  - c. Utilize the expertise of visiting scientist from other universities for special requirements;
  - d. Develop collaborative workshop activities in specialized disciplines pertinent to tropical animal agriculture development.
2. To provide opportunities for education and training of the manpower required for development of the production potential of animals in wet/dry tropics, including.
  - a. Orientation of resident instruction for in-depth training on the characteristics of animal agriculture and forage production in the tropics:

- b. Establishment of student exchange mechanisms to permit sharing of the strengths of the various institutions and to provide practical experience in the wet/dry tropical environment;
  - c. Development of courses and research in tropical animal agriculture designed to hasten the training and maturity of U. S. and foreign scientists;
  - d. Development of non-degree short courses and training seminars.
3. To develop and maintain active research on animal agriculture in the wet/dry tropics as a team effort.
- a. Provide staff experience and competence necessary for effective training;
  - b. Provide opportunity for student involvement in research as an essential part of training.
4. To accommodate requests for technical assistance and for consulting services relevant to animal agriculture in the wet/dry tropics:
- a. Release of staff for assignments in specialized areas of animal agriculture;
  - b. Assignment of qualified students for activities that would contribute to their training.
5. To make available institutional physical resources, including office space, laboratories, equipment, and land for accommodation of activities of:
- a. Resident staff and students;
  - b. Exchange staff and students;
  - c. Visiting staff and scientists.

#### IV. OBJECTIVES, SCOPE, AND PRIORITIES

The objective of this proposal is to improve the capacity of Tuskegee Institute to assist A. I. D., other developmental agencies and countries in the design and organization of systems for the delivery of information and inputs to farmers and others in the livestock sector which are essential for the orderly development of the ruminant livestock industry.

The capacity consists not only of the ability to handle technical information, integrated and packaged for the ruminant livestock industry of a given location, but also of the ability to make adaptations of the systems to other cultural, social, economic, and physical environments.

Scope of activities under this grant would include advanced training for regular staff, an increase in faculty numbers, experience and research in less-developed countries, addition of courses, upgrading the library and development of effective linkages with other U. S. institutions, LDC institutions and other organizations. Within this scope of activities, first attention will be given to faculty development, development of work plans with other grantees, and defining with more precision areas of the world and problem situations in which grant activities will be concentrated.

#### V. UNIVERSITY CAPABILITIES

The basic plan for a center of competence at Tuskegee Institute for livestock production in the tropics is already in operation. It needs only to be strengthened and expanded. The Animal Sciences Program is integrated with the program in Veterinary Medicine. The personnel and facilities are used on an inter-departmental basis. Students in each of these areas have the advantage of training and research resources in these and other related areas such as in food science and economics.

At the present time Tuskegee Institute is involved with two programs which involve less developed countries. The Guyana Ranch Management and Livestock Production Program, was initiated in the fall of 1968 and is currently working with its third group of trainees from Guyana. The program is a non-degree program which provides an opportunity for selected trainees to study all phases of livestock production. It involves practical experience in the many operational procedures including all phases of livestock production - poultry, swine, and dairy cattle, as well as beef cattle - livestock and farm management, meat processing, pasture and forage production, agricultural extension methods, and animal health. In addition, sufficient theory required to make the practices meaningful is provided. The trainees are selected on the basis of previous agricultural knowledge, experience, aptitude, and genuine interest in being stockmen.

The Department of Agricultural Sciences through a program sponsored by A. I. D. is assisting the countries of Mali, Senegal, Mauritania and other West African countries in the development of a poultry industry.

This program involves the establishment of feed mills and hatchers; the training of poultry managers and extension personnel; and the development of resources exchange between the cooperating countries.

In addition to these ongoing programs Tuskegee Institute has been associated with a teacher-training program in Liberia, West Africa and several of the faculty in the Department of Agricultural Sciences have participated in technical programs in Ghana, Congo, Nigeria, and Kenya. Tuskegee also enrolls many students from overseas. During the 1971-72 academic year students from Bahama, Bermuda, China, Ethopia, Ghana, India, Jamaica, Liberia, Nigeria, Pakistan, Sierre Leone, South Africa, West Indies, Bolivia and Thailand were enrolled in various programs at Tuskegee Institute. The School of Veterinary

Medicine is continually providing opportunities for qualified students from less developed countries to enroll in the DVM degree program.

Undergraduate students desiring to study Animal Science may follow a four-year curriculum and earn the bachelor's degree in Animal Science. Subsequently, a qualified student may pursue a graduate curriculum and earn the Master of Science degree in several areas in Animal Science. Students who plan to study Veterinary Medicine usually follow a two year program in pre-veterinary studies in the Animal Science Department. Students accepted by the School of Veterinary Medicine are awarded the bachelor's degree in Animal Science with a concentration in Veterinary Science upon successful completion of the first two years of the professional curriculum.

The academic and training programs described above are integrated with a considerable amount of research by faculty and graduate students. Much of this research has either direct or transfer relevance to livestock production and animal health.

The various programs at Tuskegee Institute involve nearly 1,000 personnel, one third of which makes up the teaching faculty. These people and facilities are housed in 159 buildings of all varieties, situated on 5,189 acres of land. Tuskegee Institute has a long history of significant and successful involvement in comprehensive human resource development programs for the indigent, and special informal and continuing education activities for the professionals.

#### VI. INSTITUTE'S CONTRIBUTION:

Funds provided by this grant will not replace existing funds for any current activities. Also, activities carried out under this Grant will be additive to existing and planned programs of the Institute. In direct support

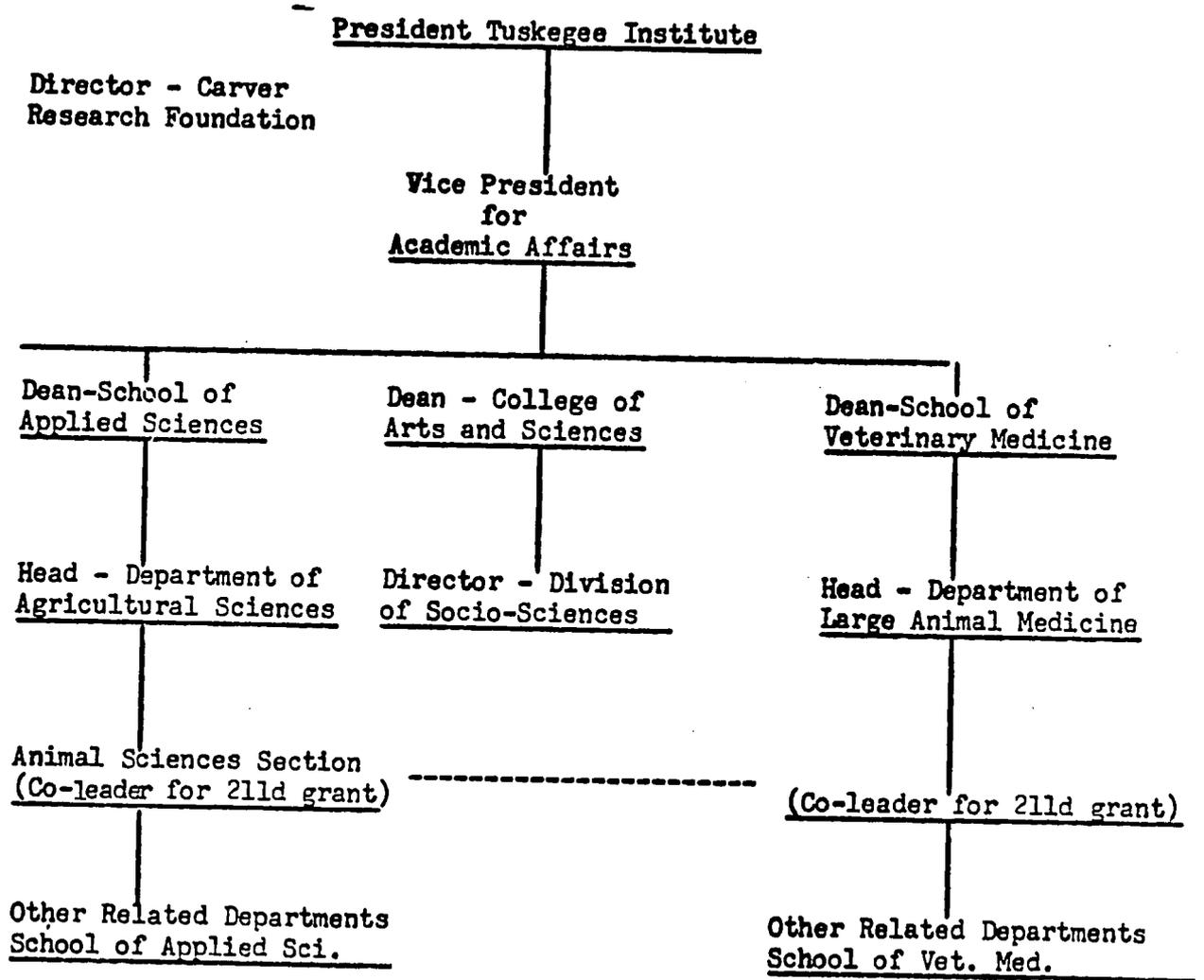
of the Grant, Tuskegee will provide:

1. Administrative costs, including time of Deans and other senior officers of the Institute.

2. Access to research facilities and laboratories, library facilities, office, classroom and auditorium space for faculty, students, and special meetings or symposia related to this program.

3. Consultation with members of the faculty not directly associated with or financed by the Grant.

VII. ADMINISTRATIVE ORGANIZATION



The Head of the Department of Agricultural Sciences will act as the overall Program Director for the 211d grant at Tuskegee Institute. It is envisioned that the project will have Co-leaders, one in Animal Science and one in the Department of Large Animal Medicine of the School of Veterinary Medicine. The Director of the Carver Research Foundation has the Administrative responsibilities for all research and grant programs at Tuskegee Institute in cooperation with the Vice President for Business Affairs.

## VII. PROGRAM IMPLEMENTATION

### A. Long Time Plan of Work

-This program will focus on developing delivery systems for technical packages for ruminant livestock development programs that are compatible and adaptable to the social, cultural and economic patterns of the LDCs. In cooperation with other members of the consortium, it is anticipated that this program will include:

1. The study of animal agriculture and marketing systems with respect to the use of technology and methods for delivery of technology.
2. The study of delivery systems in place, including degree of acceptance by farmers and identification of weakness in the systems.
3. The utilization of data collected from studies to establish guidelines, policies and operational procedures for the implementation of a "systems approach" in livestock development.
4. The facilitation of faculty development as related to delivery system and ruminant livestock development.
5. The support of graduate research assistantships, foreign and domestic as related to delivery systems and ruminant livestock development.
6. The acquisition of relevant reference materials in order to improve the library resources.
7. The support of research on delivery systems and ruminant livestock development in LDCs.

### B. Consortium Administration

Project leaders (or co-leaders) from each member of the consortium will compose the consortium council, which will have the responsibilities:

1. To provide policy and programs guidance,

2. To develop plans for the cooperative efforts and

3. To facilitate implementation of the plans.

Chairmanship of the council will rotate among members of the consortium. The chairman will call meetings, maintain records, publish and distribute plans and policies, and perform such other leadership roles as are necessary to further the work of the consortium. Each member of the consortium may use grant funds to support participation of its staff in council-sponsored activities.

C. First Year's Plan of Work

During the first year, representatives of Tuskegee Institute and other consortium members will observe livestock production, disease control and marketing programs in several geographic areas (to be determined by consortium members) to select LDCs for field studies. In addition to these activities the first year's plan of work may include the following:

1. Appointment of project leader or co-leader who will coordinate the development and implementation of the plan for grant activities at grantee's own institution and will serve on the Consortium Council.

2. Assist in the selection of specific less developed countries for study to determine and document the delivery systems that may be adaptable for the implementation of a systematic program for livestock development.

3. Initiate plans for facilitating faculty development with respect to strengthening of faculty resources necessary for the attainment of the Institute's and Consortium's goals, as supported by this grant.

4. Initiate a review of current courses and academic programs related to livestock development and information delivery systems which could be used as a core program for advanced training in tropical livestock production.

This review will focus on the need for strengthening current courses and the need for the development of new courses.

5. Initiate a review of current library resources and implement a plan for acquiring reference materials essential for the support of activities planned under this grant.

6. Additional activities will be initiated during the first year as associated with the development of the Consortium first year plan of work.

#### IX. REPORT AND REVIEW

An annual report will be submitted in accordance with the "standard provisions" of a 211d grant. This report will include the plan of work for the following years activities. Following submission of the annual technical report AID will initiate a review of the activities under the Grant. Such a review will include an evaluation of progress, administrative and financial considerations, and the plans for the coming year. The discussions will include ways in which the accomplishment may be utilized in the AID program and other areas where technical assistance may be needed. The Institute will contribute to such annual (or other) reports as the Consortium Council may require.

#### X. SERVICES

No direct services will be rendered using grant funds except for short and ad hoc consultation. If such services are desired from the grantees, such services will be funded under separate arrangements.

BUDGET

Salaries	\$248,000
Graduate Assistantships	100,000
Travel and Allowances	84,000
Communications, Library etc.	29,000
Equipment	13,000
Other (such as publications, printing, data processing, supplies etc.)	<u>26,000</u>
Total	\$500,000

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PX

DEPARTMENT OF STATE  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON, D. C. 20523

OFFICE OF  
THE ADMINISTRATOR

AID/csd 3676

JUN 29 1972

Dr. L. H. Foster  
President  
Tuskegee Institute  
Alabama 36088

CERTIFIED A TRUE COPY THIS  
8th DAY OF August 1972  
BY E. L. Amis

Dear Dr. Foster,

I am pleased to inform you that pursuant to the authority contained in Section 211(d) of the Foreign Assistance Act of 1961, as amended, and in accordance with the agreed upon Final Proposal dated June 8, 1972, Grant No. AID/csd-3676 in the amount of \$500,000 is hereby made to Tuskegee Institute. These grant funds are provided to support the activities which are described in your Proposal for the implementation of your program entitled "Expansion of Competency in the Design and Execution of Ruminant Livestock Development Programs for the Tropics: With emphasis on design and organization of systems to integrate technological information and disseminate it along with needed physical inputs."

The grant is effective this date and shall continue in effect for a period of five years thereafter.

This Grant is made on condition that your institution shall carry out the activities for which support is provided, and administer the grant funds in accordance with the Proposal (including the Budget Summary), and the Standard Provisions, attached hereto and made a part hereof. To the extent of any inconsistency between the Proposal and the Standard Provisions, and any other provisions which are made a part of this Grant, by reference or otherwise, the Standard Provisions shall control.

FUNDS AVAILABLE

Date June 30, 1972  
Project No. 931-11-130-141-73  
Obligation No. 3121041  
Object Class 259  
Allotment 254-31-099-003422  
Amount \$ 500,000.00  
By (initials) B  
AID/CSEI/ACC/WAB

- 2 -

Please sign the Statement of Assurance of Compliance and the original and seven (7) copies of this letter to acknowledge your understanding of the conditions under which these funds have been granted. Please return the Statement of Assurance of Compliance and the original and six (6) copies of the Grant to the Office of Procurement.

Sincerely yours,

/s/John A. Hannah

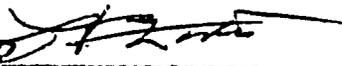
John A. Hannah

**Attachments:**

1. Statement of Assurance of Compliance
2. Final Proposal and Budget Summary
3. Standard Provisions
4. Appendix "A"

**ACKNOWLEDGED:**

TUSKEGEE INSTITUTE

BY 

L. H. Foster

TITLE President