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UNIVERSITY OF TENNESSEE

COLLEGE OF AGRICULTURE

DEPARTMENT OF AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

ANNUAL TECHNICAL REPORT OF 211(d) PROJECT

1971 - 1972

211(d) Annual Report, AID/csd 1927
July 1, 1971 - June 30, 1972

Title: AGRICULTURAL ECONOMIC ISSUES IN INDIA

Grantee: The University of Tennessee, Institute of Agriculture

Director: David W. Brown, International Professor of Agricultural Economics

Administered through Department of Agricultural Economics and
Rural Sociology, T. J. Whatley, Head, and Director of International
Agricultural Programs, Lewis H. Dickson

A. Statistical Summary

Period of Grant: July 1968 through June 1973 Amount of Grant: \$200,000

Expenditures for FY 1972: \$51,053 Accumulated: \$160,535

Anticipated for FY 1973: \$39,465

B. Narrative Summary

Grant work this year shifted more strongly into research and educational contributions related directly to AID concerns in both India and broader LDC contexts.

Besides teaching and working with several graduate students, the 211(d) Professor drafted some teaching materials on "grassroots" agricultural program planning and implementation, with India-like situations especially in mind. Part of this was in association with the ADC/RTN/Agricultural Administration group. He was involved also in the USDA/AID agricultural policy shortcourse for LDC leaders, an AID/TA/Methodology conference, and Peace Corps efforts to establish stronger professional ties with agricultural colleges. Efforts continued on campus to strengthen library collections, cross-disciplinary interaction, and interest in and understanding of international development.

Two of the five 211(d) Fellows completed their study programs. The research of one, based on early 1971 field work in Mysore State, dealt with irrigated land/water use. The second dealt conceptually with agricultural program feedback. April 1972, another 211(d) Fellow went to Bangalore for three months to study farmer credit repayment problems. The 211(d) Fellows, along with other returned Peace Corps Volunteers and LDC nationals in the department, continued to be a valuable source of campus insight and stimulation for international activities.

Grant work during FY 1973 will center around completion of two remaining 211(d) student studies, publication of 211(d)-related research, and further evolution and testing of the training materials related to program decision-making and administration. Professional contacts in Ind. will be sustained to the extent possible. New international linkages for interested faculty and students will be sought in a manner compatible with both Institute of Agriculture and AID interests.

FOURTH ANNUAL TECHNICAL REPORT
July 1, 1971 - June 30, 1972

AID/Section 211(d) Institutional Grant, csd-1927
University of Tennessee
AGRICULTURAL ECONOMIC ISSUES IN INDIA

I. GENERAL BACKGROUND

This grant stemmed from the belief that AID/CUSURDI agricultural assistance could be enhanced by closer links between (a) agricultural economists at Tennessee and (b) professional colleagues, former students, and team members in India. It came also from the desire to strengthen curricula and counseling for "international" students on campus; to relate their research more closely to analytical needs in India and other developing countries; to increase faculty acquaintance with LDC problems; and to tap more fully previous experience in agricultural economics and related fields that bears on development, both in Tennessee and abroad.

Grant funds were seen as a vehicle to enable the Department of Agricultural Economics and Rural Sociology and the Institute of Agriculture, to make progress in these directions that would not otherwise be possible...to help catalyze and set the stage for a modest, but self-sustaining international dimension that would be complementary to both campus educational endeavors and AID-related concerns abroad. Though India was to be given special attention, contributions to other developing countries and AID planning were anticipated too. It was envisioned also that involvement of faculty and students in developing countries might be a source of fresh insight in tackling Tennessee's own agricultural modernization and rural development problems.

Unique 211(d) contributions were seen to pivot around and spread from (1) an added faculty member who could give full-time attention to the international dimension, as well as augment relevant specialties; (2) opportunities for some American graduate students to launch their international career base and at the same time enhance LDC-related insights and inquiry; and (3) travel for a limited number of faculty and students to help build up communicative and research linkages with agricultural economists in India and elsewhere.

II. GRANT OBJECTIVES

Specific objectives of this grant, as stated in the original instrument, are:

To develop within the University of Tennessee specialized competency to deal with agricultural economics issues of India, and to establish this area of specialization as a legitimate and continuing function of the University. In furtherance of the basic objective, and through the assistance of the proposed grant, the University of Tennessee proposes to engage in research and graduate instruction so as:

1. To increase the capability of the University of Tennessee to render assistance to India (and other developing nations) in the general area of agricultural economics.
2. To increase the pool of scientific manpower trained in agricultural economics interested in and capable of assisting India (and other developing nations).
3. To create a professional awareness of the international dimensions of agricultural economics.
4. To stimulate interest of agricultural economists in international service careers as employees of private or public entities.
5. To encourage college students to seek training leading to careers in agricultural economics under private or public auspices.
6. To provide an opportunity for graduate students to obtain research experience on problems of particular relevance to the developing countries (to the maximum extent feasible, by assisting with research activities carried out wholly or partially in India).
7. To increase interest in and knowledge about the agricultural problems of India by drawing upon all relevant special competencies of staff members of the Department of Agricultural Economics and Rural Sociology and other departments of the University.

All of these objectives have received attention since the grant's initiation in 1948. Relative to some of the other 211(d)/India grants, less attention has been given to research accomplishment as an end in itself and more to campus build-up of curricula, professional interaction, teaching materials and faculty/student involvement.

It soon became clear that to try to develop expertise for all aspects of agricultural economic problems for all of India would be much too ambitious, diffuse, and pretentious. So special geographic focus was placed on Mysore State, where much of Tennessee's involvement has been. And, to help fill in the apparent gap between policy-level analysis, at the one extreme, and farm-level analysis, at the other, emphasis was given to operational program design related to farm modernization, marketing, credit, and companion change-agency concerns.

Especially after Fall 1971, when prospects for continuing links with South Indian agricultural universities and development programs became uncertain, grant-related endeavors have taken on a broader-than-India tone. Program execution problems encountered in Mysore State are still strongly in mind, but more attention is now being given to training and research implications for, and linkages with, other LDC situations.

III. MAJOR ACCOMPLISHMENTS, 1971-72

Whereas emphasis during the first three years was on establishing Indian contacts, strengthening curricula and ancillary campus activities, and attracting more "international" students, the focus this fourth grant year shifted to analytical and educational substance itself. Persons most directly concerned were the 211(d) professor (D. W. Brown), another professor with LDC experience (M. B. Badenhop), and five 211(d) graduate fellows. The work included not only faculty-student research related to agricultural program design, but also educational materials that would have application in countries besides India. Much of this was done in cooperation with other AID-related activities, and there were interfaces with such fields as rural sociology and development administration. Efforts to improve campus reinforcement and public understanding of international development work continued. Specific highlights are:

A. Teaching

Courses in the department that carried a strong international flavor because of the inherent subjectmatter and/or student composition this year included:

Ag. Econ. 4240, World Agriculture and Trade (Badenhop)
Fall 1971, 13 students

Ag. Econ. 4250, Agricultural and Rural Program Planning (Brown)
Summer 1971, 13 students
Spring 1972, 5 students

Ag. Econ. 4330, Land Economics (Martin)
Winter 1972, 25 students

Ag. Econ. 5410, Agricultural Marketing Analysis (Snell)
Fall 1971, 22 students

Ag. Econ. 5440, The Economics of Agricultural Development (Badenhop)
Winter 1972, 8 students

Ag. Econ. 6210, Agricultural and Rural Transformation Problems (Brown)
Summer 1971, 8 students

Rur. Soc. 4450, Diffusion of Agricultural Technology (Leuthold)
Spring 1972, 8 students

Four or five additional graduate students from other departments took special problems courses with Dr. Badenhop or Brown on topics related to international development.

The 211(d) Professor and fellows continued to be active in organizing special seminars related to international development and world affairs. Those in which they had an especially strong hand were:

- 1971 June 30 George Smith, 211(d) Fellow, Agricultural Development in Bolivia (UT/Ag. World Food and Fiber Series Seminar).
- July 21 Kok Kian Poh, East-West Center graduate student and Malaysian Federal Land Development Authority staff member, Land Settlement in Malaysia (UT/Ag. World Food and Fiber Series Seminar).
- Aug. 2 Parker Cashdollar, 211(d) Fellow, Land Use Possibilities in the Tungabhadra Irrigation Project of Mysore State, India (departmental graduate research seminar).
- Aug. 12 Wayne A. Schutjer, Agricultural Development Council, The A/D/C Research and Training Network Program, and Emerging Opportunities for U. S. University Service to International Agriculture (informal seminar, UT Committee on International Agriculture).
- Aug. 20 Ag. Econ. 6210 class, Diagnosing the Problems of Disadvantaged Farmers (special briefing session for interested faculty and students on the results of the class' group term exercise).
- Oct. 7 D. W. Brown and others, The 211(d) Program and Future Plans (informal briefing and idea exchange with interested faculty and students).
- Oct. 26 Noel Rebello, AID Participant from Mysore State, India, Agricultural Program Planning to Reflect Farmer Capabilities in Mysore State, India (departmental graduate research seminar).

- Nov. 29 Thomas H. Silcock, World Bank Economist-Editor, World Bank Criteria for the Evaluation of Country Prospects and Plans (UT public lecture). Also two informal seminars on public administration, international relations, economic and agricultural aspects of IBRD work.
- 1972 Jan. 20 Charles B. Seckinger, AID/Washington, Rap session with 211(d) fellows and other interested persons on development research plans and needs.
- Feb. 21 Kusum Nair, Michigan State University, Feast or Famine: Some Issues in Agricultural Development (UT public lecture). Also various sessions with faculty and students, Feb. 21-23. (Her visit catalyzed by Thomas Vollrath, 211-d Fellow, in association with Walter C. Neale, Professor of Economics. Financing provided by the Dean of Business Administration and the Division of International Education.)
- Mar. 14 Glenn Ames, 211(d) Fellow, Production Credit Problems of Small Farmers in Mysore State (departmental graduate research seminar).

Robert Thurston, 211(d) Fellow, was instrumental in initiating a cross-campus "International Issues" panel series that involved faculty and students from various departments:

- Oct. 12 U. S. Universities and International Professionals Training and Developmental Needs
- Jan. 13 U. S. Foreign Aid -- Questions, Issues, Possibilities
- Jan. 27 Implications of U. S. Economic Policy in the Third World
- Feb. 17 Roles of U. S. Professionals Abroad

There were several lectures and seminars sponsored by the UT Division of International Education which people in the 211(d) circuit helped to publicize and took part in. Among others, these included speakers on foreign policy and international assistance made available by the State Department and AID. One AID visitor of special relevance to the substance of this grant was James Bleidner, who discussed land reform and other developments in Chile.

On the agricultural campus, two additional seminars that received cross-departmental participation were:

- Sep. 22 W. L. Parks, Professor of Soil Science, Soil, Water and Plant Nutrition Problems in India (USDA Club talk).
- Apr. 6 Webster Pendergrass, Vice President for Agriculture, Recent Developments in Indian Agriculture and the UT/AID Program (Experiment Station seminar).

The 211(d) Professor continued to serve as a source of help for agricultural students who wanted to look into international service opportunities with such groups as the Peace Corps, as well as for colleagues seeking facts about international agriculture and development.

Starting July 1972, the Department's international teaching and service capacity is being augmented by a new faculty member, Brady Deaton, who recently completed his Ph.D. at Wisconsin and who was previously a Peace Corps Volunteer in Thailand. He will be teaching agricultural policy and advanced land economics. While his initial research will focus on Tennessee rural poverty and resource development, he has strong interest in international involvements.

B. Research and Training Materials.

Six "international" M.S. theses and Ph.D. dissertations were completed or initiated during the 1971-72 period. Some deal directly with India; others take advantage of students' backgrounds elsewhere, but embody analytical elements of relevance to Indian problems and programs. These include:

Sang Gee Kim, AID/Korea Participant, M.S.: The Impact of PL 480 Shipments on Prices and Domestic Production of Foodgrain in Korea, Under J. G. Snell.

Parker D. Cashdollar, 211(d) Fellow, Ph.D.: An Economic Analysis of Crops and Land Use Localizations in the Tungabhadra Irrigation Project of Mysore State, India, Dec. 1971, under M. B. Badenhop. Based on field work in India, Nov. 1970 - Mar. 1971, in cooperation with Mysore University of Agricultural Sciences. Extra copies available. An article based on this study has been prepared by Badenhop and Cashdollar, and is under current review.

Noel S. P. Rebello, AID/India Participant, Ph.D.: Agricultural Program Planning to Reflect Potentials of Small Farms, with Applications to Mysore State, India, Mar. 1972. Under D. W. Brown. Based in part on Cashdollar's farm survey and production input-output data.

Robert V. Thurston, 211(d) Fellow, M.S.: Informational Feedback in Agricultural Development Programs, completed July 1972. Under D. W. Brown. Applies constructs from economic, communications, and development administration theory. Relates especially to Venezuelan local-action programs, but provides frame for dealing with similar problems elsewhere.

Thomas L. Vollrath, 211(d) Fellow, M.S.: A Framework for Diagnosing Cultural/Institutional Obstacles to Agricultural Modernization in Upper Volta (tentative title), to be completed Fall 1972. Under M. B. Badenhop. Should carry analytical implications for other countries as well.

Glenn C. W. Ames, 211(d) Fellow, Ph.D.: Production Credit Repayment Problems of Small Farmers in Mysore State, and Possible Solutions, expected to be completed by Winter 1973. Under D. W. Brown. To be based on field work in India, April-July 1972, in cooperation with Mysore University of Agricultural Science and various Mysore State agencies.

M. B. Badenhop, in association with Nelson Rodriguez (Ph.D. student), C. L. Cleland (Professor of Rural Sociology), and Nelson Robinson (UT Director of International Education), analyzed further details of the 1968 survey of landholders in the Dominican Republic that had been done under a small USAID contract. This subsequent work was contributed by the University of Tennessee. Pending AID concurrence, the 84-page report, Land Tenure in the Dominican Republic (May 1972), is available for distribution in limited quantities.

Relevant to the focus of this grant is the Ph.D. dissertation completed by Gene Ellis in June 1972 under Professor Walter C. Neale in the Economics Department -- Man or Machine; Beast or Burden: A Case Study of the Economics of Agricultural Mechanization in Ada District, Ethiopia. Financial support for this study was provided by AID.

Reflecting (1) the increasing uncertainty of future institutional linkages with India and (2) the feeling that a number of other agricultural economists in AID and U. S. university circuits have more to offer regarding India's broad scene, the 211(d) Professor's own efforts have gone into the build-up of diagnostic constructs and teaching materials related to the planning and implementation of agricultural programs at operational levels. "Grassroots" program execution difficulties observed in India have been key points of departure, but this line of inquiry and writing is being evolved with other developing countries in mind as well. This is being done in communication with other groups with similar concerns, especially the Agricultural Development Council Research and Training Network and AID/TA/Development Administration.

More specifically toward this end, Dr. Brown during the past year...

- ...Prepared a preliminary set of notes, exercises, and readings on decision-making aspects of agricultural and rural program planning. (Evolved in connection with his 4250 course, Summer 1971. Some improvements suggested by students, colleagues, and AID reviewers subsequently incorporated.)
- ...Took part in the (AID-financed) ADC/RTN/Agricultural Administration workshop endeavor, aimed at developing training materials and a "model" training course for LDC middle-level program managers. This included preparation for and participation in three workshop sessions (New York, Sep. 17; Tucson, December 11-12; Honolulu, Apr. 4-8), and drafting of four "chapters" on:

- Allocation of time
- Determining the work program
- Interagency working relationships
- Evaluation

- ...Guided three graduate students (Rebello, Thurston, Ames) in research studies that focus on change-agencies as decisionmakers.

The constructs and teaching materials stemming from this line of work may be of use not only to change agencies in developing countries, but also to agricultural and rural agencies in the U. S.

The 211(d) Professor was also chairman or member of the advisory committees of several other graduate students concerned with U. S. or LDC development, and spent considerable time helping to refine theses and other research manuscripts.

C. Graduate Students

Of the approximately 50 graduate students in agricultural economics during the 1971-72 period, 19 were LDC-oriented in terms of background, program emphases, and/or future plans. Of these, five were 211(d) Fellows, five were returned Peace Corps Volunteers under non-211(d) auspices, and nine were from developing countries. Only one student was from India, but three of the Americans had their Peace Corps experience there. All of the 211(d) Fellows had begun their M.S. or Ph.D. work in previous years; two of the five completed their study program by July 1972. During the year five new "international" students joined the Department, and six left for jobs or further graduate study elsewhere. More details about these students are shown in Attachment 1.

Three additional M.S. students, though majoring in other fields, had close associations with 211(d) activities. James Rugh in agricultural engineering (Peace Corps, Senegal and India) was very active in local educational work related to international development and relief, and in April 1972 was named to the OXFAM/America national board of directors. Anthony Griffin (Peace Corps, Colombia) completed his M.S. in agricultural extension (with two of his special problems in agricultural economics and rural sociology), and continues as UT's Associate Director for International Student Affairs. William Seiders (Peace Corps, Colombia) completed his M.S. degree in agricultural extension, Spring 1972, and has started Ph.D. work in international extension at Louisiana State University.

As a group, the "international" graduate students have performed well academically, have added much to faculty-student perspectives, and have been a source of fresh inspiration for dealing with both U. S. and LDC development problems. Five of the six agricultural economics graduate students elected to Gamma Sigma Delta this year were "international" students. The majority of departmental faculty seem interested in having more returned Peace Corps Volunteers and sponsored students from other countries.

The number of such students will probably be down next year. Funding constraints have prevented additional 211(d) fellowships from being awarded. As evidenced by Attachment 1, the Department Head has sought and obtained Experiment Station appointments for several, but this means their working on U.S.-oriented research rather than on LDC problems. Assistantship stipends in the Institute of Agriculture this past year have been very uncompetitive (hopefully to be improved soon). This, combined with shortage of funding for research directly related to international development, was a factor in several strong American applicants deciding to go elsewhere for graduate study. Also,

the phase-down of the AID contract work in India has resulted in fewer Indian participants taking courses in agricultural economics and rural sociology. Whether there will be sufficient interest to warrant continuation of all the international courses and special activities evolved these past four years in the Institute of Agriculture is in some doubt.

The 211(d) Fellows and other "international" students in the Department have continued to exert a stimulating influence elsewhere on campus and in the Knoxville community. Besides organizing the special seminars reported earlier, they were among the key leaders in International House activities, orientation programs for new foreign students, the second Knoxville Walk for Development, the annual UT "World on Parade" night, and refugee relief efforts. Several gave talks related to international development -- in International House forums; at local UN Association, school, church, and civic group meetings; and on TV. More subtle, but equally important, has been the "snowball" effect of the 211(d) Fellows and returned Peace Corps Volunteers in catalyzing and reinforcing campus attention to international concerns. Here again, the reduced number of such students anticipated next year places this generative spirit in jeopardy.

D. Consultive and Public Service

Beside the A/D/C RTN workshops mentioned earlier, the 211(d) Professor participated this year in several off-campus activities related to international development:

Co-chairman (with E. B. Badenhop), contributed papers section, international agriculture session, American Agricultural Economics Association meetings, August 1971. (Review and selection of papers.)

Resource person, USDA/AID Agricultural Policy Seminar for LDC leaders, Washington, D. C., August 9-10 and 23-26, 1971. (Also helped with the planning of this seminar course, and prepared three teaching pieces on agricultural modernization, helps for disadvantaged farm people, and opportunities for policy innovations.)

Gave a talk at the Peace Corps/SREB-sponsored International Agricultural Forum on the 211(d) idea and opportunities for agricultural colleges to strengthen their international dimension, Atlanta, August 27-28, 1971. (Also, with UT's L. N. Skold, helped Peace Corps officials plan this forum, aimed at reaching professors and deans in the Southeast. Others attending from UT were Dean Glen Hall and Dr. D. M. Thorpe.)

At the request of Erven Long and CUSURDI, spent three days in Washington and several days at UT assembling information and preparing a working paper on implications of international aid for U. S. agriculture, November 1971. (Used as a basis for subsequent materials on this subject developed and circulated by Drs. Long and Scoville.)

In response to a request from Erven Long, prepared a summary of previous UT research related to rural population adjustments to changing conditions, February 1972.

Participant, invitational consultative seminar on technical assistance methodology, sponsored by AID/TA/Methodology Division, Atlanta, March 24-26, 1972.

Continued as Peace Corps Career Consultant for agricultural economics (correspondence with returning Volunteers about graduate study and career opportunities).

Served (with L. N. Skold) as an informal sounding board about some ideas for university linkages being developed by Peace Corps/Washington-- e.g., its proposed "Future Agricultural Research Manpower" (FARM) program.

Gave talks on international development and assistance to the Knoxville Torch Club, UN Association, and League of Women Voters.

Helped arrange programs for several international visitors to TVA and UT, and discussed various program aspects with them. (Others in the Department and Institute of Agriculture occasionally involved.)

E. Linkages with India and Other Programs

A major contribution of 211(d) to Tennessee's work in India has been the intensified attention on campus to the needs of AID Participants from there -- more opportunities in courses, seminars, and informal settings to relate their specialities to Indian development needs...to become acquainted with innovative ideas in other countries...to think about things they could do something about upon their return to India. Several of the Indian Participants at UT during the 211(d) period have taken advantage of such opportunities. However, with the flow of new Participants from India having ceased (only two remaining as of July 1972), this element of 211(d) contribution has been greatly curtailed.

Communication with persons in South India during 1971-72 was mainly with UT team members; Agricultural Department personnel; and Dr. R. Ramanna, Dr. Donald Taylor, and other agricultural economists at Mysore University of Agricultural Sciences. This was chiefly concerned with followthrough to Cashdollar's Tungabhadra study, Rebello's SFDA study, and arrangements for Ames' credit repayment study. Cashdollar's data and linear programming results were made available to MUAS and other Mysore agencies, and agricultural economists were encouraged to make use of these in further analyses and writing. (No concrete knowledge of such thus far.) The Development Commissioner and other Mysore State officials have taken considerable interest in Ames' farm credit study progress and in seeing the findings when completed.

Possibilities of having a 211(d) Fellow collaborate in research with Tamil Nadu Agricultural University were explored this year. They seemed personally interested, but strains in U.S.-India relations apparently made them feel it best not to consider such for the present.

Rebello's study of local-level agricultural program planning led to communication with, and help from, Mysore State officials concerned with the Small Farmers Development Agencies. His intentions following return to Bangalore were to follow up with more concrete analysis and informational feedouts related specifically to SFDA, a program of current interest in India.

A. N. K. Murthy, former AID/Tennessee Participant who in Spring 1971 completed a dissertation on regulated markets in Mysore, has endeavored to pursue this further in research and educational work. His insight in this area was recently sought by a World Bank mission to India.

Plans had been for one or two department faculty to go to South India during CY 1972 to become better acquainted with Indian problems and programs, to backstop 211(d) student research, and to make informal contributions to collaborating institutions there. However, the freeze on 211(d) involvements in India ruled this out.

The 211(d) Professor's participation in the RTN/Agricultural Administration workshop at the East West Center in April opened up doors for at least informal communication with a couple of new Indian contacts. D. K. Desai of the Indian Institute of Management and Kuldeep Mathur of the H. C. Mathur State Institute of Public Administration in Jaipur were at the workshop. They expressed interest in keeping in touch with the work of the RTN group and Dr. Brown, as well as in student/faculty research cooperation if and when future conditions permit. There has already been some exchange of materials between Dr. Brown and these two persons.

Linkages with other U. S. universities in the AID 211(d) grant/research contract orbit this year were especially with Ohio State, Cornell, Michigan State, and Wisconsin. The Tennessee Party Chief in Bangalore helped arrange for the graduate students (one from Cornell and the other from Ohio State) to do research in Mysore. Cornell's John Mellor and Dr. Brown have kept in touch through correspondence about one another's activities. Contacts with Gar Wood, Nick Luykx, and Donald Green through the RTN workshops provided a feel of the work at Michigan State and the East-West Food Institute related to agricultural program management, as a help to Dr. Brown in deciding how his own efforts along this line might be most complementary.

Glenn Ames, the UT 211(d) Fellow now conducting the credit repayment study, sought and received very helpful suggestions from Dale Adams at Ohio State while this project was in the formulative stage. This led to Ames spending several days at Ohio State with Dr. Adams and others in the AID/finance project to review background materials and to seek their ideas about how his project could be made most complementary to their own efforts. Ames also spent a few days at the Wisconsin Land Tenure Center, and received similar help. Hopefully the result will be a research contribution that not only sheds further light on farm loan repayment in India specifically, but also augments the broader buildup of insight in this problem area.

During the year several people in AID/Washington were very helpful in reinforcing the substance of Tennessee's 211(d) work. John Young, as well as Dr. Myren, called attention to, and where possible provided copies of, recent reports related to the concerns of this grant. When further 211(d) research in India seemed ruled out, Dr. Blume explored possible linkages with AID activities in other NESAs countries. He also sought and obtained ideas from USAID/Afghanistan about dissertation topics that our Participant from there might usefully tackle while at Tennessee. Dr. McDermott took the initiative in circulating the teaching materials drafted by Dr. Brown among several AID/W persons and obtaining their suggestions for improvement. The 211(d) professor had several contacts during the year with the TA/Development Administration and TA/Agricultural Economics groups, who were sources of stimulation and insight. Charles Seckinger during this visit to Knoxville was a very helpful sounding board about proposed research and training materials. He also encouraged and paved the way for one of the 211(d) fellows, Robert Thurston, to visit AID/Washington to get in touch with persons and materials of relevance to his study on program feedback. Following the Atlanta conference, the TA/Methodology group has contacted the 211(d) professor about things that he might do to augment their efforts to develop educational materials related to technical assistance methods. All this has not yet added up to much in terms of concrete results from AID's viewpoint, but it does represent a pattern and spirit of interaction at professional levels that could yield more productive university contributions in the future.

F. Involvement of Other University Resources

The University has continued to reinforce work of the 211(d) faculty and students in ways that it can -- office space, supplies, computer and duplication facilities, secretarial help beyond that covered by the grant, and time by the department head and the Office of International Agricultural Programs in administrative backstopping.

The Department Head, T. J. Whatley, has taken much interest in helping to work out ways for capable students with international interests to start or continue graduate study. During 1971-72 financial support was provided under Experiment Station and NSF auspices for four returned Peace Corps Volunteers and two foreign nationals. Arrangements were made for an additional student whose IIE/Fulbright scholarship had been cut off by funding cutbacks to continue during 1972-73 under departmental auspices. This usually has meant doing research on U. S. problems, but has enabled such students to take graduate work consistent with their international career aims.

One professor -- Dr. M. B. Badenhop -- has been linked particularly closely to the 211(d) effort. Over half his time this past year has been devoted to teaching "international" courses, guiding research and writing reports related to LDC problems, meeting with visitors, serving as a sounding board for proposed 211(d) activities, etc.

Involvement of other professors in the Department has been primarily through special attention to international agriculture in certain courses and membership on graduate advisory committees.

One professor outside agricultural economics -- L. N. Skold in Plant and Soil Sciences, a former India team member -- has had more than the usual associations with 211(d) circuits. He has continued to serve as chairman of the Committee for International Agriculture, provide counsel to students with international interests, give talks related to Indian international development, help handle international visitors, and reinforce various international activities on campus.

Three professors outside the department made significant contributions of time this year as members of thesis and dissertation committees related to 211(d) work -- Nelson Robinson, Political Science; Frank Bell, Plant and Soil Sciences; and Robert Dotson, Agricultural Extension Education. D. M. Thorpe, former Party Chief, was also a helpful source of technical counsel.

The University's Divisions of International Education and International Student Affairs continued to reinforce 211(d) endeavors in several ways-- helping to expedite and publicize visiting speakers; office assistance related to the Walk for Development, International House seminars, and other special activities that 211(d) students spearheaded; helping to explore available (this year more often not available) avenues of financial aid for "international" students; and communication about other campus activities of relevance. As noted earlier, the Dean of Business Administration, who has had previous interest in University international activities, provided a substantial part of the funding for Kusum Nair's visit.

Despite funding cutbacks, the Agricultural Library made new acquisitions of materials on India and international development at a somewhat accelerated pace -- several hundred items this year. The 211(d) professor was helped in making selections by three former India team members -- M. B. Badenhop, L. N. Skold, and D. M. Thorpe.

No University funds were specifically assigned to 211(d) work, but the value of time and support that related closely to 211(d) aims during FY 1972 might be estimated at \$34,900, not counting administrative time and office facilities:

Faculty time, other than the 211(d) Professor, devoted to international and development courses, "international" student advising, visitors, etc. (1 man-year equivalent)	\$ 20,000
Financial help (assistantships, workshops, fellowships, tuition) to five non-211(d) students with international career interests, excluding time on U. S. oriented research	\$ 12,000
New agricultural library acquisitions related to India and international agriculture	\$ 2,000
Honoraria and expenses for off-campus speakers	\$ 600
Office supplies and reproduction of materials	\$ 200
Donated computer use	\$ 100

In terms of functional contributions, something like 47% (\$16,500) of this University support related to teaching and student professional development, 38% (\$13,200) to research reinforcement, and 15% (\$5,200) to consultative and public educational service.

IV. INTERNATIONAL PROGRAMS OF THE UNIVERSITY OF TENNESSEE

The major overseas undertaking of the Institute of Agriculture has been the AID contracts in South India. So with the phase-out of this program in September 1972, there will no longer be an institutional channel for overseas faculty service, foreign student enrollment on the agricultural campus will be down, and there will no longer be a full-time Director of International Agricultural Programs.

The implications for the 211(d) work will not be quite so severe, as these past two years the 211(d) Professor has moved into a functional focus on agricultural program planning and implementation that transcends India. However, it does leave him and others in the Department without a specific LDC setting to relate to firsthand, other than personal links to former associates and students abroad.

Not counting executive visitors, those who have retired, and those who are now at other institutions, there are 21 University of Tennessee staff members who have had long or short term assignments in India -- three in agricultural economics, three in agricultural engineering, two in agricultural information, four in extension administration and methods, one in library administration, and eight in plant and soil sciences. A number of these have expressed interest in other international involvements from time to time, as well as in sustaining contacts in India, should there be future opportunities. A few others in agriculture who have had overseas experience elsewhere or who have been close to 211(d) circuits have indicated similar interests.

Nearing completion is a history of Tennessee/AID agricultural programs in India that Dr. D. M. Thorpe has been preparing.

Elsewhere on the Knoxville campus, international activities continued this year at a modest but healthy pace. Foreign student enrollment, Fall 1971, was 455--up 14 percent from the previous year. Unlike some universities, budget squeezes did not bring cuts in foreign student services or international studies offerings; in fact, at least one or two additional international studies positions were opened up, and the area studies committees provided for the first time with some "seed money" to reinforce their activities. There were no major institutional involvements abroad, but individual faculty and students did undertake overseas learning, service, and research activities in a variety of contexts. Of particular relevance to the focus of this grant was the establishment in the Political Science Department of a graduate course series in comparative and developmental administration.

One intriguing line of inquiry was an exploratory study of cross-cultural communication problems initiated by the Division of International Student Affairs and the Department of Psychology. Innovative approaches involving TV taping of pairs and groups of students were employed. Funding to continue this is being sought.

V. EXPENDITURES

Grant expenses during FY 1972 were approximately \$51,053. This was below the \$55,000 figure projected in last year's report, mainly because only one graduate student and no faculty members went to India. Total Tennessee grant expenditures to date -- July 1968 through June 1972 -- were about \$160,535. This leaves some \$39,465 for the final grant year, plus \$1,775 credited to the 211(d) account as reimbursement for Dr. Brown's contributions to the USDA/AID agricultural policy shortcourse. See Attachment 2 for more line item detail, and Attachment 3 for estimated functional (teaching, research, consultive service) allocations.

Major expense items during the July 1971-June 1972 period were: the 211(d) professor's salary, stipends and tuition for the five 211(d) Fellows, half-time services of one secretary, and international air fare and initial expenses for Glenn Ames' research in India. Lesser items included travel to the 1971 211(d) review meetings; research-related travel by Ames and Thurston to Columbus, Madison, and Washington; computer and publication costs of the Cashdollar study; and some special postage, cable, and long-distance telephone expenses.

As in previous years, no equipment items were purchased under the grant. No expenses were incurred for the visiting international speakers; they were provided by other university sources or by their own sponsoring agencies. All of Dr. Brown's travel costs, except for the annual review meeting, were covered by the cooperating group concerned, and -- in accord with UT Institute of Agriculture policy -- any additional reimbursement received was credited to the 211(d) account. Air transportation and India-based expenses for Ames' study in Mysore were handled so as to utilize U. S. Rupee accounts.

Estimated expenses for Ames' India research, April-July 1972, beyond his normal fellowship stipend are:

International air travel and accompanied baggage	\$1,850
Passport, visa, shots	\$ 50
Maintenance while abroad	\$1,450
Student survey help, field travel, materials and other India research costs	\$ 300
	<u>\$3,650</u>

VI. WORK PLAN & BUDGET FOR 1972-73

Grant work during FY 1973 will center around (1) completion of research previously initiated under 211(d) and digestion of results for more widespread dissemination, and (2) further development of training materials related to agricultural program planning and administration.

During the first half of the year, two 211(d) Fellows will be completing their research under Drs. Badenhop and Brown. Thomas Vollrath's M.S. thesis on cultural-institutional considerations in subsistence farmer modernization should be done by early Fall. Glenn Ames will be back on campus from India by early August, and expects to have his analysis and writing related to Mysore production credit repayment problems finished by Winter or early Spring 1973. The third remaining fellow, George Smith, will shift from 211(d) to Experiment Station auspices by September and will do his Ph.D. research on resource conservation considerations in Tennessee river basin development. In part this reflects the freeze on 211(d) research in India and the difficulties of doing substantive LDC-oriented research off-site, and in part personal family considerations of the student. Disappointing as this is, the stimulation and insight provided by Smith these past two years, and the future contributions he is likely to make, have still justified the 211(d) investment in him.

Drs. Brown and Badenhop will endeavor to generate informational feedouts from the Vollrath and Ames studies, as well as from the Cashdollar, Thurston, and Rebello studies completed during FY 1972.

Dr. Brown plans also to devote considerable attention to further evolution of concepts and teaching materials related to "grassroots" agricultural program implementation, in cooperation with the ADC/RTN workshop group, the East-West Food Institute, and the AID/TA/Development Administration group. He hopes to refine the 4250 course notes into a monograph that stresses decisionmaking at operational program levels. If the RTN activity continues as planned, there will be involvement in the further development of "model" course outlines and materials for teaching middle-level program managers. As one spin-off of this, the East-West Food Institute is proposing to try out a course of this nature, probably in Taiwan in late CY 1972, and has invited Dr. Brown to serve as a resource person in its planning and conduct. Also, AID/TA/DA has expressed interest in having him take part in some activities this coming year related to public and private sector agricultural management improvement efforts.

One of Dr. Brown's M.S. students, Robert Mabele from Tanzania, is planning to do a thesis study on informational and communicative components of marketing systems for smallholders in his home country.

The Department will endeavor to keep in touch with former students and other contacts in India, at least through correspondence, exchange of materials, and encouragement of further analysis and information dissemination stemming from previous research. Also, an effort will be made through library acquisitions and other means to keep up with agricultural development in India, Mysore State particularly...a need that perhaps becomes more important, now that AID and CUSURDI members have fewer direct associations there.

A May 1972 survey of Departmental faculty, initiated by the 211(d) Professor and the Department Head, disclosed that four or five professors have interest in short-term overseas assignments, and one or two long-term assignments, if leave arrangements could be worked out. Approaches have been made by international agencies to certain individuals, and possibly one will take such an assignment during the coming year.

More compatible for some with on-going campus commitments or at certain family stages is the idea of a few weeks abroad to backstop student research, follow through with former students, contribute to special training activities, etc. In terms of grant objectives of strengthening the departmental base for international teaching and research, it would be desirable for additional faculty to "get their feet wet" abroad in such manner, as well as for the professors most directly concerned with international teaching (Badenhop and Brown) to have direct LDC contacts from time to time. Remaining Tennessee grant funds seem sufficient to cover two, possibly three, such faculty involvements abroad. Since doing this in India does not appear possible in the near future, an eye will be kept peeled for outlets in other developing countries where interested faculty could both learn and make useful contributions.

Several possibilities are in mind. The 211(d) Professor could productively observe program difficulties and innovations to help improve the training materials that he is developing, and has contacts, in Latin America and Southeast Asia especially, that could afford this. Mr. Fuchs-Carsch, the Ph.D. candidate now working with agricultural planning in Ethiopia under AID auspices, plans to do a dissertation study related to this and would benefit by having a faculty member interact with him at an early point. At the same time this would also provide a handhold for the professor involved to become better acquainted with problems and programs in a developing country related to his particular specialty. Various professors in the Department have contacts in Africa, Asia, and Latin America with whom mutually beneficial linkages might be fostered. AID people have mentioned some possible research, consultive, or training needs where a professor or student could both help and learn. Firmer plans about how best to broaden faculty LDC experience with the remaining grant funds will be jelled early in FY 1973 in consultation with relevant AID personnel.

As shown in Attachment 2, unexpended grant funds going into FY 1973 are about \$39,465. It is proposed to use these mainly to cover the 211(d) Professor's salary; stipends, tuition, and research costs for the remaining 211(d) Fellows; part-time support of one secretary; and one or two faculty overseas learning/service activities, if appropriate opportunities in keeping with AID's and UT's concerns come along. In this last connection, if productive LDC linkages do not jell during the year or if other expenses are less than anticipated, AID concurrence may be sought for carrying over remaining funds into FY 1974 to help expedite such faculty involvements. Such carry-over would probably not be more than five or ten thousand dollars.

Looking ahead to July 1973, the 211(d) Professor will be shifting to conventional College of Agriculture/Experiment Station auspices unless new avenues of salary support for international development work become available. Teaching of development oriented courses, advising of international students, and occasional LDC involvements would still be possible, but he could no longer devote the bulk of his attention to such endeavors.

Finally, of possible interest to readers of this report are some administrative changes in the Institute of Agriculture, effective Summer 1972. The present head of agricultural economics and rural sociology, T. J. Whatley, is becoming Assistant Dean of the Agricultural Experiment Station. His replacement as Department Head will be J. A. Martin, whose previous work has been primarily in land resource economics at UT. Gist Welling, recent Tennessee/India Party Chief, is heading the newly expanded extension resource development group. W. D. Bishop, who was an India team consultant in 1970, has been named Dean of the Tennessee Agricultural Extension Service. There have also been recent realignments of departments related to the plant, soil, and animal sciences.

ATTACHMENT 1.

"INTERNATIONAL" AGRICULTURAL ECONOMICS STUDENTS ON BOARD DURING 1971-72

211(d) Fellows

- Glenn Ames.....Peace Corps, Venezuela. Completed Ph.D. prelims, Spring 1972. Field research in South India, Apr.-July 1972. Expects to complete dissertation by Winter 1973.
- Parker Cashdollar...Completed Ph.D. dissertation based on his field work in South India, Dec. 1971. Since Sep. 1971, Assistant Professor of Economics at U. of Tenn. Martin campus, teaching principles and development economics.
- George Smith.....Peace Corps, Ecuador and Bolivia. Completed Ph.D. prelims, Spring 1972. Starting Fall 1972, will shift to Experiment Station assistantship for dissertation research on river-basin development. Should complete by 1973.
- Robert Thurston.....Peace Corps, Venezuela. Completed M.S. thesis, June 1972. Starting Summer 1972, will be Peace Corps Associate Director, British Honduras.
- Thomas Vollrath.....Peace Corps, Upper Volta. Expects to complete M.S. thesis by Fall 1972.

Other Americans with International Interests

- John Anania.....Peace Corps, Mysore State, India. Completed M.S. thesis under Experiment Station auspices, Oct. 1971. Since Nov. 1971 has been extension economist with U. of West Virginia pilot Allegheny Highlands Project at Elkins, W. Va.
- Michael Fuchs-Carsch.Pease Corps, Kenya. Completed Ph.D. prelims Spring 1971. July 1971-April 1972, was economist with the Bureau of Census International Demography Center in Suitland, Md. Since then has been agricultural planning economist in Ethiopia under AID/Transcentury auspices. Hopes to develop Ph.D. dissertation related to this work.
- Ellen Gouin.....Peace Corps, Upper Volta. Expects to complete M.S. thesis under NSF fellowship, Summer 1972.
- Thomas Lederer.....Peace Corps, Mysore State, India. Completed M.S. thesis under Experiment Station auspices, Spring 1972. Will begin Ph.D. work in rural development at Pennsylvania State, Fall 1972.
- Merle Menegay.....Peace Corps, Mysore State, India. Began M.S. work, Fall 1971, under Experiment Station assistantship. Has been awarded an NSF traineeship, starting Fall 1972.

ATTACHMENT 1. (Continued)

Students from Other Countries

- Khairulah Dawlaty.....AID/Afghanistan Participant. Began Ph.D. studies, Sept. 1971. Hopes to develop dissertation related to Afghanistan foreign trade prospects.
- Leonardo Gonzales.....Philippines. Began Ph.D. studies, Sept. 1971, under IIE/Fulbright scholarship with UT tuition waiver. An Experiment Station workshop, starting July 1972, is enabling him to continue toward degree completion.
- Rene Guoin.....French citizen reared in Morocco. Agricultural technical assistance experience in Gabon, Senegal, and Upper Volta. Received UT/McClure Fellowship award, June 1971. Expects to complete M.S. thesis under Experiment Station auspices, Summer 1972.
- Sang Gee Kim.....AID/Korea Participant. Completed M.S. thesis, Summer 1971. Returned to agricultural economics research position in the Korean Ministry of Agriculture.
- Ying-Nan Lin.....Taiwan. Completed Ph.D. prelims, Spring 1972. Starting dissertation research under Experiment Station auspices.
- Robert Mabele.....Tanzania. Began M.S. studies, Sep. 1971, under AFGRAD scholarship. Plans to do thesis study related to farmer marketing programs of Tanzania.
- Noel Rebello.....AID/India Participant. Completed Ph.D. dissertation, Dec. 1971. Returned to faculty position in agricultural economics, Mysore University of Agricultural Sciences.
- Nelson Rodriguez.....Venezuela. Participated in the UT/Dominican Republic land tenure study and subsequent tabulations. Since Fall 1970 has been economist with the Inter-American Development Bank in Washington. Completed Ph.D. prelims, Summer 1972. Hopes to develop dissertation related to his IADB project evaluation work.
- Christian Saade.....Lebanon. Began M.S. studies, Sep. 1971. May do thesis related to livestock marketing in Lebanon.

ATTACHMENT 2.

ACTUAL AND PROJECTED 211(d)/TENNESSEE GRANT EXPENDITURES

	To Date			Projected	
	FY 1969-71	FY 1972	Cumulative FY 1969-72	FY 1973 ^c	5 Yr. Total
Personnel: ^a					
Salaries	\$ 63,927	\$23,100	\$ 87,027	\$24,000	\$111,027
Fringe benefits	4,759	1,823	6,582	1,920	8,502
Graduate Fellows: (No. on board)	(1-5)	(5-4)		(3-0)	
Stipends	26,030	16,366	42,396	5,433	47,829
Tuition	5,842	5,137	10,979	2,316	13,295
Travel, U. S. and abroad	7,393	3,663	11,056	3,200 ^d	14,256
Other ^b	<u>1,531</u>	<u>964</u>	<u>2,495</u>	<u>2,596</u>	<u>5,091</u>
Total	\$ 109,482	\$51,053	\$160,535	\$39,465	\$200,000 ^e

^aIncludes the 211(d) professor and partial support of one secretary.

^bMainly overseas research costs, computer use, reproduction of materials, postage, communications.

^cAuthorization may be sought to extend use of some funds into FY 1974 for faculty-LDC linkage and information dissemination purposes.

^dAllows for one or two faculty learning/service assignments abroad.

^eIn addition, \$1,775 has been placed in the 211(d)/Tennessee account as reimbursement for special help provided for the 1971 USDA/AID policy shortcourse.

ATTACHMENT 3.

ESTIMATED FUNCTIONAL DISTRIBUTION
OF 211(d)/TENNESSEE GRANT EXPENDITURES

	To Date		Projected	
	FY 1969-71	FY 1972	FY 1973*	5-Yr.Total
<u>Teaching--courses, counseling, graduate study support, curricula building, special campus learning and LDC-feedback activities</u>	\$ 55,300 (51%)	\$18,300 (36%)	\$ 7,500 (19%)	\$ 81,100 (41%)
<u>Research--thesis studies on campus and in India, acquisition of research materials, establishment of links with India and elsewhere, preparation of materials based on research and LDC experiences</u>	\$ 35,100 (32%)	\$17,900 (35%)	\$17,200 (44%)	\$ 70,200 (35%)
<u>Consultive and public service--information to professionals in India and other LDC's, helps to other AID-related activities, international visitors, talks to Tennessee groups</u>	\$ 19,100 (17%)	\$14,900 (29%)	\$14,700 (37%)	\$ 48,700 (24%)
TOTAL	\$109,500	\$51,100	\$39,400	\$200,000

* Authorization may be sought to extend use of some funds into FY 1974 to help reinforce faculty-LDC links if productive opportunities are not found in early FY 1973.