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9. ABSTRACT

A PROJECT: To improve the competence of Virginia State College in analysing and contributing to the resolution of problems of low income farm and rural non-farm units in South Central Virginia and Ghana.

DURATION: June 1, 1972 - May 31, 1979

DEVELOPMENTS: Principal accomplishments during this report period fall under five categories: expanded knowledge; advisory capacity and capability; education and training; linkages and networks; and information capacity and dissemination. With a large proportion of its students coming from the rural areas, Virginia State College has long held an interest in the rural sector. Its Bureau of Economic Research and Development (BERD) has focused its research efforts on the low-income segment of the rural sector, specifically seventeen counties and five cities in rural South Central Virginia. Although productivity has been increased in the U.S., poverty has not been eradicated in many of its areas. Experience gained from solving problems in the rural agricultural and business sectors will help to solve similar problems in LDCs. Recent experiences of the College support the belief that economic planning is essential for effectively re-allocating limited resources to stimulate economic growth under financial constraints. Efforts need to be especially directed toward manpower development, management, and marketing techniques. Eight field research projects are planned for Ghana and eight related domestic projects in the next report period. Objectives of the proposed studies include:

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increased understanding of project identification, design analysis and evaluation in LDCs; increased understanding of rural development problems in LDCs; increased capacity to advise and consult on rural development problems in LDCs; and project reports and working papers.

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VH. STU
PN-AAF-026

BUREAU OF ECONOMIC RESEARCH AND DEVELOPMENT

Fifth Annual Report



U. S. Agency For International Development

VIRGINIA STATE COLLEGE

PETERSBURG, VIRGINIA 23903

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I

GRANT TITLE: TO IMPROVE COMPETENCE IN AGRICULTURAL ECONOMICS AND
ECONOMICS TO ANALYZE AND CONTRIBUTE TO RESOLVING
PROBLEMS OF LOW INCOME FARM AND RURAL NON-FARM UNITS

211(D) Annual Report

Date Due: Aug. 31, 1977

Date November 1, 1977

GRANTEE: Virginia State College

COORDINATOR: Huey J. Battle

AID SPONSORING TECHNICAL OFFICE: Technical Assistance Bureau

A. Statistical Summary:

Period of Grant: June 1, 1972 to May 31, 1979. Amount of Grant:
850,000.00.

Expenditures for Report Year 160,641.68. Accumulated 494,604.05
Anticipated for next year 201,011.00.

B. Narrative Summary

1. Principal accomplishments during this period (FY 1977) of the grant:

The principal accomplishments of Virginia State College (VSC) through
its Bureau of Economic Research and Development (BERD) under the 211(d)
AID institutional grant includes objectives/outputs in five categories
of activities:

- (A) expanded knowledge;
- (B) advisory capacity and capability;
- (C) education and training;
- (D) linkages and networks;
- (E) information capacity and dissemination.

The objectives/outputs are as follows:

(A) Expanded Knowledge

- (i) Field research projects in LDCs and domestic related research projects (see [2] below).
- (ii) Participation of VSC's staff/faculty members in design, analysis and/or evaluation of US-AID projects in LDCs (see [2] below).

(B) Advisory Capacity

- (i) Increased "core" BERD staff capacity in identification and research of rural development problems (see [2B] below).
- (ii) Increased VSCs staff capability in rural development (see [2B] below).
- (iii) Released time for faculty/staff members to respond to AID and LDC requests for consultative and advisory assistance in design analysis and evaluation of research projects (see [2B] below).

(C) Education and Training

- (i) Masters Degree program in Economics, with a concentration in Economic Development, at VSC, including:
 - (a) recruitment and training of U.S. and LDC graduate students;
 - (b) supporting and training minority undergraduate students in Economics;
 - (c) offering courses relevant to rural development;
 - (d) training students in research methodologies, survey techniques, field projects and writing.
- (ii) Seminars, workshops, short-courses and conferences.
- (iii) Exposure of VSC staff and faculty (including graduate students research assistants) to LDCs—exchange program.
- (iv) Exposure of LDC staff and faculty (including graduate student research assistants and field workers) to field research projects in LDC and U.S.—exchange program.

(D) Linkages and Networks

- (i) Strengthening existing rural development linkages with LDCs (Ghana).
- (ii) Explore new linkages with LDCs.
- (iii) Establish linkages and networks with U.S. and international institutions (see [2D] below).
- (iv) Collaborate with AID, LDCs and U.S. institutions in design, analysis and evaluation of projects.

(E) Information Capacity and Dissemination

- (i) Library (Reference Center) acquisitions:
 - books and materials
- (ii) Reports of research completed and/or in progress:
 - publications including monographs, newsletters, working papers and reports
 - conferences and (published) proceedings.

2. Principal accomplishments during the life of the grant (cumulative — 1972 to present).

(A) Expanded Knowledge

- (i) Increased number of "core" staff members in BERD, and faculty members at VSC—with experience in the areas of Manpower, Management, Marketing, Production and Agricultural Credit to conduct small field research projects on rural development problems in LDCs:
 - (a) Staff and Faculty:
 - five and one-fourth full-time man-year equivalent (ten persons, of which six are "core" professionals staff members) with knowledge and experience in working collaboratively with LDC professionals;
 - (b) LDC Research Projects:
 - two small field research projects on LDC problems completed with two master's

theses [Gyekye (1) and Bezuneh (1)],
and one joint monograph publication
(Gyekye, Acquah and Whyte);

five small field research projects in
progress, including—two master's
theses (Ahene, and Harmon), one Ph.D
dissertation (Moore), and two joint
research projects (Joshua and Anim-
Appiah);

two conference proceedings published
(1973 and 1975).

(c) Domestic Related Research Projects:

- four published monographs [Whyte (2),
Moak and Whyte (1), Motley, Whyte and
Joshua (1)];
- two completed master's theses [Motley (1)
Burwell (1)];
- five completed working papers on domestic
related research projects [Whyte (3),
Moody (1) and Meeks (1)];
- four incompletd master's theses with un-
sure status [Foreman (1), Bates (1), Walker
(1) and Hudgins (1)].
- thirteen small field research projects (from
which monographs will be forthcoming) in pro-
gress [Lesnett (1), Chipley (1), Moak-Whyte
(3), Acquah (5), Joshua (2) and Moore (1)].

(B) Advisory Capacity

- (i) Advisory and consultation capacity of BERD/VSC staff/
faculty members for participation in design, analysis
and/or evaluation of AID projects in LDCs.
 - (a) 25-33 man-months available (FY 1977) for consulting
and advising AID, LDCs and other donors committed
to improving conditions of small farms and non-farm
business units in LDCs.
 - (b) seven man-days consultative service by BERD staff
(Whyte) with TAB/AID (1977).
- (ii) Developed and submitted proposals for utilization to and
consulted with Director of Development Resources/AID (John
Withers) and Directors of Africa Regional Bureaus.

(C) Education and Training

Education and training capacity in Economics, Agricultural Economics and Rural Development.

- (i) Graduate program in Economics with one of the areas of concentration being Economic Development, including Agriculture and Rural Development.**
 - (a) Supported ten graduate student research assistants in Economic Development to complete the requirements for the Master Degree:**
 - four completions with theses;
 - four completed course work with thesis status uncertain;
 - two in progress with completion dates by December 1977.
 - (b) Broadened the graduate program in Economics to include two Agricultural Economics courses to enhance training of graduate students in Economic Development.**
 - (c) Proposed two additional graduate courses in Agricultural Economics which have been accepted for approval by the College:**
 - 1.-"The Role of Agriculture in Economic Development",
 - 2.-"Marketing of Agricultural Products: The African Case".
 - (d) Proposed the merging of the Agricultural Economics program with the Economics program which has been approved by the College for implementation.**
 - (e) Increased number of courses at the undergraduate level in Economics to be consistent with the thrust of the economic development concentration in Economics.**
 - (f) Supported and trained seven undergraduate students in Economics who have all completed the requirements for the Bachelors Degree:**

- four are pursuing graduate studies in Economics [Yerby (Iowa State); Davis and Randall (Penn. State); Bradley (N.Y.U.)];
 - One is with US-AID, Ghana Desk (Williams);
 - Two--no current information, (Coles and Harper).
- (g) Increased capability of two graduate students in the conduct of research in LDCs by sending them to Ghana for 4 months to conduct their thesis research projects. (Harmon and Ahene).
- (ii) Increased capacity of VSC and the capability of its staff/faculty members by having them participate in the conduct of research work and other activities (i.e. teaching) in LDCs.
- (a) Dr. Joshua - assigned to University of Science and Technology (UST), Kumasi, Ghana for 20 months - under the UST/VSC linkage program in Rural Development;
 - (b) Mr. Moore - conducted research on his Ph.D dissertation in Ghana for eight months--under the UST/VSC linkage program in Rural Development;
 - (c) Dr. Whyte - two short-term assignments in Ghana under the UST/VSC linkage program in Rural Development;
 - (d) Dr. Battle - two short-term assignments in Ghana under the UST/VSC linkage program in Rural Development.
- (iii) Increased number of research projects conducted in LDCs and projects on LDC rural development problems (see: 2A above) for increasing knowledge and experience (capability) of staff/faculty and students.
- (iv) Increased number of masters theses, monographs, working papers and reports of graduate students/research assistants and research associates in economic development. (See: 2A above).
- (v) Increased number of seminars and short-courses geared to increasing knowledge of students, staff and faculty in economic and rural development.
- (a) At least twelve working seminars per year on research projects on problems in LDC;

- (b) at least one short-course (i.e. seminar on Research Methodology, Economic Development of LDCs in Africa).

(D) Linkages and Networks

(i) Linkages and Networks with LDCs

(a) Strengthened rural development linkage with Ghana.

- Maintain staff member in residence at the University of Science and Technology-Kumasi, Ghana (Dr. Joshua for 20 months; replaced by Dr. Acquah for up to 18 months);
- support staff member at UST on research project (Mr. Moore for 8 months).
- exchange of students: Mr. Gyekye and Mr. Ahene at VSC for 20 months; Mr. Harmon and Mr. Ahene at UST for 4 months;
- support two joint research projects at UST with Dr. Joshua (VSC), Dr. Ntim (UST) and Dr. Anim-Appiah (UST) as principal investigators;
- collaborate (VSC with UST) on rural development conferences—at VSC 1975, and at UST 1977.

(b) Explore linkage possibility with LDCs.

- Consulted with officials of the Division of Economic Planning in the Ministry of Planning and Economic Development, Liberia; and with administrators faculty and staff of The University of Liberia;
- Corresponded with the Nigerian Embassy as a follow up to "The Future Nigerian-U.S. Linkages in Higher Education"—conference June 24, 1977.

(c) Established linkages and network with U.S. and international institutions.

- Member of the South East Consortium for International Development (SECID) with Dr. Battle as VSC's representative;
- established collaborative/cooperative linkages with 1890 institutions (colleges and universities);

- established linkages with such international organizations as:

The Association of African Universities
Accra, Ghana;

Nigerian Institute of Social and Economic Research, Ibadan, Nigeria;

Institute for Development Studies
Nairobi, Kenya;

Makerera Institute of Social Research
Kampala, Uganda;

Institute for Agricultural Research
Ahmadu Bello, Zaria;

Pan African Institute for Development
Douglas, Cameroun;

Association of Caribbean Universities
and Research Institutes
Kingston, Jamaica;

United Nations Asian Development
Institute.

- Member of The International Peanut Research and Training Program.

(E) Information Capacity and Dissemination

- (i) Collection, evaluation, storage and dissemination of useful, updated information related to agricultural, economic and rural development.
- (ii) Search and inventory Africa, international centers, LDC records and files, and U.S. institutions for data and information on agricultural, economic and rural development.
- (iii) Preparation, publication, storage and dissemination of research papers, monographs and newsletters on agricultural, economic and rural development problems in LDCs:
 - (a) at least six research papers presented at professional meetings and conferences;
 - (b) at least 3 masters theses on problems of development in LDCs;

- (c) at least six reports on research projects in LDCs;
- (d) at least eight newsletters on VSC's (RERD) program and activities;
- (e) at least eight published monographs and thirteen monographs in progress.

C. Detailed Report:

General Background and Description of Problem

With a large proportion of its students coming from the rural areas, Virginia State College has long held an interest in the rural sector. Consequently, VSC, through its Bureau of Economic Research and Development (BERD) has focused its research efforts on the low-income segment of the rural sector. BERD selected, as its laboratory, rural South Central Virginia, consisting of seventeen counties and five cities. This area represents a cross section of small scale farm and non-farm business units. The laboratory is further described as the poverty or low-income area of Virginia. Although productivity has been increased in the United States, Poverty has not been eradicated in many of its areas. This persistent poverty raises certain questions of immense concern to VSC and of interest to the Agency for International Development.

This grant was made to Virginia State College in order that the College may improve its competence in Agricultural Economics and Economics so as to enhance its ability to effectively deal with the problems of low-income agricultural and rural business units. Experience gained from solving problems in the rural agricultural and business sectors will be helpful particularly in solving similar problems in less developed countries (LDC's).

The proposal for the grant was designed to include staff development, increased faculty, curricula changes, increased relevant research, international agricultural seminars, improved library resources, and the beginning of linkages with selected developing countries.

The most recent experiences of the College tend to support the long-held belief that economic planning is essential for effectively re-allocating limited resources in such a way that economic growth can be realized under financial constraints. Thus, economic planning seminars have been held during the life of this grant. From our experiences, it has also been discerned that efforts need to be devoted toward manpower development, management, and marketing techniques if the upward mobility of man is to become a reality in low-income rural areas of the United States as well as in the LDC's. With a greater degree of specificity, the problems one finds apparent include:

1. failure to make long range plans using the systems approach,
2. absence of innovations at the small unit site, whether the farm or business,
3. scarcity of marketing skills for the present production,
4. inadequate management at the small unit site to cope with a dynamic progressive society,
5. failure to communicate or transfer knowledge of an innovative nature of managing small business units, and
6. the feeling of a systematic exclusion from society by the low-income people.

Although this grant is designed to improve the competence in the department of Economics and Agricultural Economics, a multidisciplinary staff that can focus on these problems in a somewhat comprehensive

way was employed. The problems are multifacet and although the College does not purport to solve all of them, it can participate in a meaningful way in ascertaining an understanding of the position in which the people are found and help to design a workable program to alleviate these problems.

2. Purpose of the Grant

The purpose of this grant to Virginia State College is to strengthen particularly the research function of the Bureau of Economic Research and Development and the instructional functions of the departments involved in the interdisciplinary approach by the Bureau to the solutions of problems in Rural Development. Working in such an interdisciplinary framework on the problems of low-income farmers and farm communities provides the experience to extend our work into an international dimension, and gives the college a capacity to deal with problems of people in LDCs.

3. Objectives of the Grant

A. Objectives Restated

The overall objective of the grant is to improve competence in Economics and Agricultural Economics to analyze and contribute to resolving problems of low-income farm units. The specific objectives include (a) - (i) under five categories as listed:

I. Expanded Knowledge

- (a) Expanding the staff and providing opportunities for present staff to acquire additional knowledge in agricultural, economic and rural development useful to AID and as defined in this grant.

- (b) Enabling staff to develop new materials on LDCs useful in teacher-learner situations.

II. Advisory Capacity

- (c) Providing opportunities for faculty and staff to participate in design, analysis and/or evaluation of US-AID projects in LDCs so as to increase faculty/staff capability and the advisory consultative capacity at VSC to respond to AID and LDC requests for consultative and advisory assistance.

III. Education and Training

- (d) Strengthening formal offerings in Economics, Agricultural Economics, and closely related disciplines.
- (e) Providing workshops, seminars, short-courses and conferences to expose staff and students to problems of LDCs and to enhance their capability in the conduct of research and teaching.
- (f) Developing special competencies in students and staff through field experience, including selected underdeveloped areas of the United States and overseas, and U.S. and international institutions.

IV. Linkages and Networks

- (g) Establishing linkages and networks with U.S. institutions, international organizations, and LDCs.

V. Information Capacity and Dissemination

- (h) Improving and expanding reference center (library) holdings.
- (i) Collecting, evaluating, storing and disseminating useful, up-dated information related to agricultural economics and rural development.

To achieve these objectives which are essential for the fulfillment of the purpose of the grant, VSC has:

1. made available funds to employ VSC's staff members (who are not "core" BERD Staff) who can secure release time from their departments for research work under BERD;
2. employed additional staff and consultants to carry out certain research projects;
3. participate in an exchange program for visiting scholars (staff and students);
4. organized forms for training scholars (i.e. lectures, conferences, workshops, meetings and seminars);
5. exposed staff members to "on-the-spot" (practical) assessment of rural development activities both domestic and foreign;
6. established linkages and networks with U.S. institutions and international organizations;
7. conducted joint research projects with LDC institutions;
8. exposed graduate research assistants to rural development problems in LDCs by providing funds to support their research work abroad in LDCs; and
9. held joint conferences on rural development with LDC institutions.

B. Review of Objectives

Virginia State College's objective to improve the competence to analyze and contribute to resolving problems of low-income farm and rural non-farm units have been met with some success. The fifth year of this grant has contributed significantly toward this achievement. In its effort to mobilize a capacity of expertise that will be available to AID, LDCs, and other donors, Virginia State has utilized parts of its resources in formulating a consortium (SECID) committed to assisting in resolving problems of small-scale farm and rural non farm units

domestically and in LDCs.

Consistent with the objectives of this grant, Virginia State has remained abreast and propitiously participated in the formulation of recommendations for policy consideration for Title XII (Famine Prevention and Freedom from Hunger).

The major activities during the fifth year of this grant have been in the areas of (1) expanded knowledge, (2) advisory capacity, (3) education and training, (4) linkage and network, and (5) information capacity and dissemination. Virginia State College continues to benefit from consultations and reviews by officials of AID during the fourth year of the grant as efforts were made to carry out the objectives of this grant.

- 1 - a. In addition to adding two research associates to the staff of BERD (organization responsible for carrying out the objectives of the grant at VSC) release time has been purchased with grant funds to conduct research on topics in rural development. This expansion of staff in research activities has and continues to broaden the knowledge of Virginia State College in an area that will be useful to AID and LDCs.
 - b. Two members of BERD's professional staff spent a total of eighteen man-months during the fifth year of this grant conducting research in order to develop empirical data on LDCs useful to the University of Science and Technology/Virginia State College in resolving rural development problems in LDCs. In addition, two graduate research assistants were sent to Ghana for three months to gather data for their theses in the area of rural development.
2. In the area of advisory-capacity VSC has made available to AID and others personnel useful in analyzing, designing, and evaluating projects and proposals aimed at the fulfillment of objectives consistent with those of this grant. One member of our staff has devoted considerable time in working with 1890 institutions desirous of building a capacity/capability in the area of rural

development, particularly in LDCs. A member of our staff participated in a workshop sponsored by US-AID designed to prepare and to design, analyses, and evaluate projects in rural development.

- 3 - a. Virginia State College strengthened its offerings at the graduate level in Agricultural Economics by adding a graduate course this reporting year to the present course offerings. Moreover, revision of two courses were made that would lend themselves to the objectives of this grant. In its effort to be of further usefulness to LDCs, Virginia State College has formalized a program of "English as a Second Language" and prepared a concentrated program to train those needing a French speaking capability during assignments abroad.
 - b. Several workshops were held during the fifth year of the grant to enhance the capacity of BERD's faculty, and graduate research assistants to understand and grapple with rural problems in LDCs. In addition, a series of three seminars were held for the College Community in order to bring about an awareness of the importance of LDCs to the United States and share with the attendees the major problems confronted by them as they attempt to improve their academic status.
 - c. Students associated with the rural development program this year have experienced direct contact with selected low-income rural areas in the United States, interviews with agencies focusing on rural development problems in both the United States and overseas. In an effort to develop special competencies in its faculty and staff, BERD provided opportunities for those associated with the US-AID program to attend professional meetings with a commonality of purposes.
- 4 - a. Linkage activities in Ghana remained active during this year with signals of expanded activities during the sixth year. In addition to student and research findings exchanges, three of BERD's staff and two graduate research assistants attended and participated in an international conference at UST in Kumasi, Ghana where BERD has a viable linkage. A member of BERD's staff was co-organizer of the conference on integrated rural development.

The necessary resources were provided by Virginia State to conduct the research in Ghana under the supervision of BERD's staff member assigned to this project. The results is being prepared for joint publication (VSC-UST).

b. A comprehensive review, in accordance with the formal agreement, was held at UST to determine the continuation of the linkage between the two institutions. It was completely agreed between the two institutions that the program had been mutually beneficial and would be continued. However, much was gained from the review and the linkage activities have been strengthened.

5 - a. Efforts were continued to expand the Reference Center (Library) holdings. The holdings now exceed 5000 books, journals, periodicals, etc. A librarian was utilized on a part-time basis to catalog and prepare all items for utilization by the staff and other users of the College.

b. We employed a resource staff member whose responsibility, in part, is to work with the librarian to assure the availability of information needed by researchers in the Bureau. In addition, this person reviews incoming items and calls to the attention of researchers information that may be useful to them.

c. Monographs were published and disseminated among other institutions with 211d grants, AID officials, and agencies in the state with an interest in rural development. Working papers were similarly disseminated during this reporting period.

C. Review of Critical Assumptions

Critical assumptions were not lucidly stated in this grant. However, four appear essential at this point. First, it was assumed that a graduate program in Economics would be established at Virginia State College and that graduate students would enroll in the program with emphasis on economic development. The graduate program was established in the second year of the grant and BERD has supported ten graduate students. Six of the ten are presently with the BERD. Six have completed their course requirements. Four have completed all requirements and received their M.A. Degrees. Secondly, it was assumed that a program linking

rural development activities at VSC with an LDC was possible. A formal linkage agreement with the University of Science and Technology, Kumasi, Ghana was established in the third year of this grant and is being implemented at this time. Thirdly, it was assumed that cooperative efforts would be made among the 211(d) schools with similar grants. This has not been fully realized to the extent assumed. The lack has, perhaps, been due to the uncertainties other schools faced in terms of the continuation of the program. It appears that the initiative would have to be taken by AID with a set-a-side of funds specifically for this purpose. Fourthly, it was assumed that there would be a close working relationship with AID in pursuing the objectives of the grant. It is quite apparent that AID will need to assist VSC in acquiring opportunities for more frequent utilization of its expertise in LDCs. Efforts were made on numerous occasions by VSC to utilize its expertise in some of the assignments in Africa during this reporting year. The accomplishments of VSC during the life of this grant have been due to the cooperation it has received from AID.

II. ACCOMPLISHMENTS

Consistent with the objectives (above), the accomplishments for this reporting period (FY 1977) are outlined below.

- A. Objective/Output #(a): Expanding the staff and providing opportunities for present staff to acquire additional knowledge in agricultural, economic and rural development useful to AID and as defined in this grant.

Professional and Support Staff

The "core" professional staff of BERD was maintained at six persons (five and one-fourth full-time equivalent) during this

reporting period, with the acquisition of Ms. Janet Tuthill (International Studies) in March of 1977. Ms Tuthill replaced Dr. Willie Bailey who, because of personal reasons, remained with BERD for only two months--(July-August 1976). The acquisition of Ms. Tuthill gave BERD and Virginia State College an added dimension with her fluency in the French language and her experience of working in Franco-phone Africa. The six "core" staff members during this reporting period are: Dr H. J. Battle (Director); Dr. Charles D. Whyte (Assistant Director); Dr. Michael S. Joshua (Research Associate in residence at UST, Ghana); Dr. Emmanuel T. Acquah (Assistant Research Associate); Mr. Franklin C. Moore (Assistant Research Associate); and Ms. Janet C. Tuthill (Assistant Research Associate). Of these, Dr. Acquah and Ms. Tuthill are new BERD staff members (see Appendix 1 - BERD staff).

In addition to the "core" professional staff, BERD again employed VSC faculty members from three departments on a part-time basis with continuing affiliation. They are: Dr. Frederick Lesnett (Department of Sociology); Dr. Samuel Moak (Department of Business Administration); and Dr. Donald Chipley (Department of Education). Continuing affiliation of these part-time faculty members means that they are employed full-time during the summer but they continue to participate in the activities of BERD during the remainder of the year--completing their research projects, attending meetings, participating in seminars, etc. They are full-time faculty members of their respective departments.

BERD also maintained collaborative/cooperative working relationship with staff members of the Departments Economics and

Agriculture. In particular, Dr. William Richie (Economics) is alternate representative to Dr. Battle of SECID for VSC; faculty members of the Department of History collaborated with BERD in the seminar series "The Coming of Age of Africa", coordinated by Mr. Moore of BERD.

Part-time BERD Associate Staff

Dr. Lesnett, an Assistant Professor of Sociology at VSC since 1975, is the principal investigator of a BERD research project entitled: "Factors Affecting the Labor Supply and the Earnings of Heads of Households in South Central Virginia". This project is a follow-up study to his previous project of the previous period (FY 1976) entitled: "A Comparative Socio Economic Profile of South Central Virginia", which is forthcoming as a BERD monograph. Dr. Lesnett has concentrated his research in the area of Manpower.

Dr. Moak, a Professor of Marketing and Management in the Department of Business Administration at Virginia State College since 1974, is the principal investigator of three projects: (1) "Manufacturing and Services in South Central Virginia"; (2) "Agriculture in South Central Virginia"; and (3) "Marketing Organization and Activities by County in South Central Virginia". The first two projects are in the review stage for monographs; while the latter is in progress. Dr. Moak has been associated with BERD for the past three years; and his research work has been concentrated in the areas of Marketing and Management.

Dr. Chipley joined BERD during this reporting period and is the principal investigator of the project entitled: "Manpower

Supply and Demand in South Central Virginia: A Targeted Area Information System for Facilitating Program Development, Educator Guidance, and Client Career Selection". This project focuses on developing an information system for educational planners, implementers and consumers of human resources, with a methodology which could be useful in LDCs.

Research Assistants and Support Staff

No new research assistants nor support staff members was added to BERD during this reporting period.

Of the six research assistants (Ahene and Gyekye of Ghana; Bezuneh of Ethiopia; and Harmon, Walker and Hudgins of the U.S.) who entered the program during the previous reporting period (FY 1976): three of them (Gyekye, Ahene and Bezuneh) completed their master's degree; one (Harmon) will complete his master's degree by December 1977; and two (Walker and Hudgins) completed their course work but have not completed their theses, the thesis status of the latter two is uncertain.

Although all the research assistants mentioned above have terminated their formal association with BERD, informal association with at least four of them has been maintained. Gyekye and Ahene, who were sponsored under the UST/VSC linkage program, are currently enrolled in Ph.D programs at Ohio State University and the University of Wisconsin, respectively. Bezuneh is an instructor of Economics at the University of North Carolina at Durham (North Carolina Central University). Harmon, though no longer supported by BERD, continues to do his research, using

the facilities and resources of VSC. The other two students (Walker and Hudgins) are working in non-related fields (to Economic Development) in New York and Ohio, respectively. Attempts have been made to encourage them to complete their thesis and degree.

The support staff members remained at one and one-half man-year equivalent (3 persons). They are J. Spencer (Administrative Assistant of BERD); M. P. Glass (Secretary); and B. Glass (part-time typist).

Opportunities for Acquiring Additional Competency

With the use of grant funds, Dr. Michael Joshua who was assigned to Kumasi, Ghana, under the UST/VSC linkage program in 1975, was maintained in the program for the entire FY 1977. His activities included: teaching research and other activities under the linkage program (i.e. seminars, conferences, etc.) His research projects during this reporting period were those from the previous reporting period (FY 1976): "Enterprise Combination and Capital Requirements in Northern Ghanaian Agriculture: A Case Study of the Kumbungu Area"; and "Production of Agricultural Implements for Use in Rice Production, Harvesting and Processing: Socio-Economic Aspects". These projects are in the completion phase--analysis and writing for monograph publication and implementation of results.

A second staff member (Mr. Franklin C. Moore) of BERD was supported for eight months in Ghana with the use of grant funds. His assignment included research and supervision of graduate

research assistants thesis projects. During his months of residence in Ghana, Mr. Moore did research on a project for his Ph.D dissertation entitled: "The Political Economy of Food Marketing in Ghana--1972-1976". He assisted Dr. Joshua in supervising (Ahene and Harmon, Graduate Student Research Assistants) in their research projects for their master's thesis.

Drs. Battle and Whyte, with the use of grant funds, spent approximately two man-months in LDCs (Ghana and Liberia) on assignment--planning, supervising and assessing the linkage program in Ghana, and exploring linkage possibilities in Liberia.

One BERD staff member (Mr. Moore), with the use of grant funds, attended the AID seminar on "Designing and Evaluating Programs and Projects" during the reporting period. The BERD professional staff and research assistants were supported, with the use of grant funds, in their participation in professional meetings and conferences to gain competency and knowledge that are useful to AID. Dr. Whyte presented four professional papers. They were: "Land and Black Economic Development" at the Chicago Economic Development Corporation's sixth National Symposium of the State of the Black Economy; "New Directions for Blacks in the Labor Market" at The American Economic Association Meetings; "An Analysis of Commercial Bank Credit to Farmers" at The Atlantic Economic Society Meetings; and "Agriculture in Black Economic Development: A Prospective Look at the Third Century" at The Southern Regional Science Association Meetings. He also served as discussion

leader at "The Communications and Small Farm Programs Workshop" of The Southern Regional Development Center Functional Network on Small Farms. Dr. Battle attended and participated in The American Economic Association Meetings and others, including the Rural Development Conference in Kumasi, Ghana in which four other staff members of the BERD staff (Joshua, Moore, Ahene and Harmon) also attended.

Research Activities (International and Domestic)

During this reporting period the following research projects were either completed or in progress.

LDC Related Domestic Projects

1. Manpower/Resources - Human Resource in South Central Virginia.
 - (a) "A Targeted Area Information System for Facilitating Program Development, Educator Guidance, and Client Career Selection: Supply and Demand" (Chipley) - in progress.
 - (b) "An Assessment of Human Resources and Development of Small Farms in South Central Virginia" (Acquah/Gyekye) monograph - forthcoming.
 - (c) "Occupational Mobility of Rural Labor", (Acquah) - in progress.
 - (d) "Labor Turn-over in Small Industries in South Central Virginia" (Acquah) - in progress.
 - (e) "A Comparative Socio Economic Profile of South Central Virginia" (Lesnett) - monograph forthcoming.
 - (f) "Factors Affecting the Labor Supply and the Earnings of Heads of Households in South Central Virginia" (Lesnett) - in progress.

2. Management - Resource allocation in South Central Virginia
 - (a) "Agricultural Resources and Development of Small Farms in South Central Virginia" (Moak/Whyte) - monograph forthcoming.
 - (b) "Inventory of Natural Resources in South Central Virginia" (Acquah) - monograph forthcoming.
3. Marketing - Organization, structure, conduct and performance
 - (a) "The Small Farmer and Agricultural Marketing in South Central Virginia" (Moore) - in progress.
 - (b) "Marketing Organization and Activities by County in South Central Virginia" (Moak) - in progress.
4. Production - Agricultural and non-agricultural: small business units
 - (a) "Value of Farm-wives' Time in Agricultural Production: A Case Study of South Central Virginia" (Acquah) - in progress.
 - (b) "Manufacturing and Service in South Central Virginia" (Moak/Whyte) - monograph forthcoming.

International (LDC) Projects

1. Credit - Credit programs and ploicy related to small farm and non-farm businesses.
 - (a) "An Evaluation of Institutional Credit and its Role in the Agricultural Development of Ghana" (Gyekye) - master's thesis 1977.
 - (b) "An Evaluation of Institutional Credit and its Role in the Agricultural Development of Ghana" (Gyekye, Acquah, Whyte) - monograph forthcoming.
 - (c) "Enterprise Combination and Capital Requirements in Northern Ghanaian Agriculture: A Case Study of the Kumbungu Area" (Joshua, Anim Appiah) - in progress.
2. Management - Resource allocation and practices
 - "Farm Organization and Input Utilization: A Case Study of Rice Production in Northern Ghana" (Ahene) - master's thesis 1977.

3. Production - Resource allocation

"Production of Agricultural Implements for use in Rice Production, Harvesting and Processing: Socio-Economic Aspects" (Joshua) - in progress.

4. Marketing - Food marketing and transportation

(a) "The Political Economy of Food Marketing in Ghana: 1972-1976" (Moore) - in progress.

(b) "Transportation Problems and the Marketing of Food Crops for Small Farmers in Ghana: A Case Study of the Atebubu District" (Harmon) - master's thesis forthcoming.

5. Manpower - population

"The Effects of population on the Economic Transformation of LDCs: A Case Study of Ethiopia, Kenya and Tanzania" (Bezuneh) - master's thesis 1977.

During this reporting period, VSC's (BERD) research focus, which had been gradually shifting from domestic to rural development problems abroad, has made a more pronounced shift to international (LDC) research. In the previous period (FY 1976) there were only four research projects on LDC problems. During this period the projects have increased to eight--four of which are new projects. During this period four research staff members, (two student research assistants and two research associate staff) conducted their research projects abroad (in Ghana). They were: Joshua, Moore (staff); Ahene and Harmon (students).

Domestic projects were continued during this reporting period with a view of telescoping the experiences and methodologies to solution of similar problems abroad. Many of the domestic projects were being continued from the previous period. The ones with uncertain statuses were not listed here. There are four such projects--all master's theses of Bates, Foreman, Hudgins

and Walker (former graduate students research assistants of BERD).

Expenditure for Professional Staff

Accumulated expenditure for additional staff members from grant award to the end of this reporting period is approximately \$276,860.32. There was no expenditure for additional staff during this reporting period over the previous reporting period since those staff members acquired during this reporting period were replacements. In fact, expenditure of staff members during this reporting period was less than had been projected since the replacements were acquired at lower salaries. Total expenditure for professional staff (five and one-fourth man-year equivalent) during this reporting period amounted to \$127,999.96 of which \$34,000.00 was supporting expenditure by Virginia State College. The expenditure for support staff amounted to \$8,040.00.

- B. Objective/Output #(b): Enabling staff to develop new materials on LDCs useful to teacher-learner situations.

The BERD staff with teaching assignments in Economics and Agricultural Economics continued to develop new materials on LDCs useful in such courses as: Economics of Underdeveloped Areas, International Trade, Economics of Inequality, Manpower Economics (graduate Economics); Economic Development (undergraduate Economics); and Agricultural Prices and Price Making and Farm Management (graduate Agricultural Economics).

During this reporting period, the BERD staff, with Mr. Moore as seminar coordinator, conducted a series of seminars

on; "The Coming of Age of Africa, These seminars were designed to offer an awareness of the political, historical, economic and social transformation of Africa and implications for development. There were five seminars in the series of seminars, with invited guest lecturers; and a seminar course offered to graduate and undergraduate students. The guest lecturers and topics were as follows: Dr. Ray Kea, Professor African History at Johns Hopkins University who spoke on "Social and Economic Change in the Gold Coast in the 17th and 18th Centuries"; Dr, Richard Ralston, Professor of African History at the University of Wisconsin--Madison who spoke on "Political and Social Transformation in Southern Africa"; Dr. Samuel Adams, the former Assistant Administrator for Africa, AID, who spoke on "Post-Colonial Economic Transformation and United States Involvement in Africa"; Mr. Sheldon Coles, Chief, Project Design for the Eastern and Southern African Regions, AID who spoke on "The Current Economic Structure and American Economic Aid in the Southern African Region"; and Mr. Norman Olson, Ghana Desk Officer, AID, who spoke on "The Current Economic Structure and American Economic Aid in Ghana". The seminar course was offered to two graduate student and one undergraduate student in Economics. Each student received three hours of academic credit.

During this reporting period, with the assistance of a resource staff member (Ms. Tuthill), information and materials,

useful in teacher-learner situations, have been acquired by BERD through its reference center [see: Objectives (h) and (i) below]. The resource staff is responsible for searching and disseminating information and materials to the research staff, including those with teaching responsibilities. Information and materials acquired through linkages and networks with U.S. institutions, LDCs and international institutions have proved useful in enhancing the academic training of students in Economics and Agricultural Economics. Academic staff and faculty members from such departments as Sociology, Education, Business Administration, and History have utilized the information and materials acquired by BERD in their classes to enhance their teaching effectiveness,

The costs of information and materials (resources) for fulfilling this objective are estimated at \$1,500, including acquisition costs of new materials, subscriptions and labor (of a part-time librarian).

- C. Objective/Output #(c): Providing opportunities for faculty and staff to participate in design, analysis and/or evaluation of US-AID projects in LDCs so as to increase faculty-staff capability and the advisory/consultative capacity at VSC to respond to AID and AID requests for consultative and advisory assistance.

During this reporting period, two proposals for utilization were developed and submitted to the Director of Development Resources of AID (Dr. John Withers); BERD made available 12-16 man-months of its staff for utilization in an advisory/consultation capacity to AID and LDCs; several meetings by the Director and Assistant Director of BERD were held with AID officials to work

out a program for AID's and LDC's utilization of Virginia State College's capacity.

The proposals for utilization developed and submitted to AID by BERD were designed to match the capabilities of VSC staff/faculty members with specific AID projects in which they could make an input. In addition to submitting the proposals, the Assistant Director met with the regional bureau chiefs in attempting to have them utilize the capacity developed at VSC. However, no utilization took place from these attempts during the reporting period.

Of the 12 - 16 man-months made available to AID by VSC, less than 1/2 of a man-month was utilized by TAB/AID. One BERD staff (Dr. Whyte) served in a consultative/advisory capacity assisting in establishing two new 211(d) programs at 1890 colleges and universities,

The total expenditure for the activities under objective/output #c during this reporting period is estimated at \$250.00, the cost of travel to AID-Washington, D. C. being the largest expense category.

- D. Objective/Output #(d): Strengthening formal offerings in Economics, Agricultural Economics and closely related disciplines.

No revision was made in the curricula of Economics, Agricultural Economics or related disciplines during this reporting period. However, the Agricultural Economics course, Agri.Econ. 440--Farm Management, was offered for the first time as an elective for graduate students in the Economics' graduate program.

The course was taught by a member of the BERD staff
(Mr. Moore).

Concerning the proposal for adding two courses to the Agricultural Economics curriculum, reported on last period, action by the curriculum committee was delayed pending the outcome of the planned organization of the College by the new President, Dr. Thomas Law. It is expected, however, that the reorganization will provide accommodation for the proposed addition of the courses:

1. The Role of Agriculture in Economic Development; and
2. Marketing of Agricultural Products: The African Case.

During this reporting period, BERD staff members continued to share their research findings with students, staff and faculty through formal courses, and seminars. Staff members taught formal courses in Economics and Agricultural Economics (Dr. Battle and Whyte 6 hours each, Dr. Acquah and Mr. Moore 3 hours each; and Dr. Joshua 6 hours in Ghana at UST).

Under the chairmanship of Dr. Acquah, a total of four seminars were held and six papers (topics) were presented and discussed. The papers were: "Human Capital and Labor Turnover in Manufacturing Industries: The Case of an Economically Depressed Region in South Eastern Ohio" (Dr. Acquah); "The Political Economy of Food Marketing in Ghana 1972-1976" (Mr. Moore); "Transportation problems and the Marketing of Food Crops for Small Farmers in Ghana: A Case Study of the Atebubu District"

(Mr. Harmon); "Farm Organization and Input Utilization: A Case Study of Rice Production in the Northern and Upper Regions of Ghana" (Mr. Ahene); "An Evaluation of Institutional Credit and its Role in Agricultural Production in Ghana" (Mr. Gyekye); "Farmers Cooperatives and the Agricultural "Revolution" in Ghana" (Dr. Acquah). The objectives of these seminars were to: disseminate findings of applied research conducted in BERD; discuss conceptual and empirical issues which evolved from the research projects; and to expose the graduate students and undergraduate scholarship students to preparation and presentation of papers in a professional manner.

Expenditure during this reporting period for activities in objective/output #(d) is estimated at \$15,000.00, including \$15,800.00 for instruction in the various departments (10 man-months equivalent), and \$200.00 for seminar materials, etc.

- E. Objective/Output #(e): Providing workshops, seminars, short-courses and conferences to expose staff and students to problems of LDCs and to enhance their capability in the conduct of research and teaching.

This objective/output was partially discussed under objectives/outputs #(b) and #(d) above. No workshops were held during this reporting period but the seminar series discussed in #(b)--"The Coming of Age of Africa"--were of the "open" type with wide cross-section audience; while the series under #(d) were the "inhouse" type with the audience limited to the disciplines of Economics, Agricultural Economics, Sociology, Business Administration and Education.

In addition to the activities discussed above, a UST conference on "Rural Development and Regional Planning" (held April 1977) was organized with the assistance of a BERD staff (Dr. Joshua) and attended by five VSC (BERD) staff members. The purpose of the conference was to provide a forum for researchers and policy makers to share the experiences from their research on rural development problems as well as the outcome of various policy strategies for solving rural development problems. This conference was jointly agreed upon by VSC and UST under their linkage agreement; and was the counterpart conference to the VSC's conference on "Regional and International Economic Development Planning". The conference was jointly sponsored by UST (Kumasi), the Ministry of Economic Planning (Government of Ghana), and the Pan African Institute for Development (Cameroun).

Other conferences, held in LDCs on rural development problems, which had VSC staff participation were:

- (1) The 4th African Symposium on Horticultural Crops [faculty of Agriculture UST (FA-UST)].
- (2) The Six Agricultural Workshop (FA-UST).
- (3) The Ninth Annual Symposium (FA-UST).
- (4) Land and Economic Development Conference (LARC).

The total expenditure for the seminars and conferences during this reporting period is estimated at \$2,000.00, with about 50 percent of the expenditure being the cost of guest lecturers while the other 50 percent being the cost in VSC's

(BERD's) staff man-months.

- F. Objective/Output # (f); Developing special competencies in students and staff members through field experience, including selected underdeveloped areas of the United States and overseas; and U.S. and international institutions.

BERD's "core" staff, including research assistants, and VSC's staff associated with BERD have had training and field experience in the conduct of their research work during this reporting period. The research assistants (Bezuneh, Gyekye, Ahene, and Harmon) have had to conduct surveys and interviews in the field for primary data in developing their thesis research. Bezuneh visited Kenya and Tanzania during the conduct of his research for information on his topic "The Effects of Population on the Economic Transformation of LDCs". Ahene and Harmon conducted their research in Ghana on their respective topics--"Farm Organization and Input Utilization: A Case Study of Rice Production in Northern Ghana"; and "Transportation Problems and the Marketing of Food Crops for Small Farmers in Ghana". Gyekye did intensive search of secondary data at the World Bank, US-AID, university libraries; and, through our linkage program with UST, obtained information from various sources in Ghana. Two BERD research associate staff (Joshua and Moore) conducted research on their respective projects in Ghana. [See Objective/Output (a) research activities],

BERD research associates, working on domestic research projects in South Central Virginia developed special competence in the conduct of research through field experiences. Notably are: Acquah, Chipley, Lesnett and Moak (see: Objective /Output (a)--

Research Activities).

The BERD staff members have had the opportunity to attend professional meetings and conferences on both the local and the national levels for their professional development--Battle, Whyte, Joshua, Moore, Ahene, Harmon, Bezuneh and Gyekye--all attended at least one professional meeting during this reporting period. Whyte and Battle presented papers and participated in meetings workshops and conferences--serving as discussants and chairing sessions--to gain professional experience and expertise in Economics and Agricultural Economics.

Expenditure during this reporting period for the development of such competency is estimated at \$10,000.00 of which about 30 percent was funded by Virginia State College in the form of transportation (costs).

G. Objective/Output #(g): Graduate student research assistants and scholarship student support.

During this reporting period BERD supported a total of six graduate students (Ahene, Bezuneh, Gyekye, Harmon, Hudgin, and Walker). Of these, three have completed their masters' degree. They are: Ahene, now pursuing his Ph.D degree at the University of Wisconsin; Gyekye, now pursuing his Ph.D degree at Ohio State University; Bezuneh, now an instructor at North Carolina Central University. Of the remaining three, Harmon is in the process of completing his thesis independently of BERD's support; while the status of the others (Hudgins and Walker) with respect to their thesis completion is uncertain, all six research assistants have terminated their formal association with BERD, BERD's support to Hudgins and Walker terminated in August 1976; support to

Bezuneh terminated in October 1976; and support to Ahene, Gyekye, and Harmon terminated August 1977.

BERD supported five undergraduate students during this reporting period: Bradley and Davis through December 1976; Coles, Harper, and Williams through May 1977. All the students completed their B.S. degree and are either pursuing graduate studies or working: Davis (Penn State University); Bradley (New York University); Williams (the Ghana Desk, AID); Coles and Harper (no current information).

Total expenditure on research assistants for stipend tuition and others is estimated at \$22,000.00 during this reporting period. Expenditure on scholarship students is estimated at \$6,000.00.

- H. Objective/Output # (h): Establishing linkages and networks with U.S. institutions, international organizations and LDCs.

During this reporting period, Virginia State College, through its BERD, strengthened its rural development linkage program with the University of Science and Technology in Kumasi, Ghana. It extended the time in residence of its staff member (Dr. Joshua at UST for an additional eight months) to facilitate collaborative/cooperative activities under the linkage program; made appropriate arrangements for replacing Dr. Joshua with another BERD staff member (Dr. Acquah) to be in residence at UST for up to eighteen months, consistent with its grant extension program; completed the student exchange component (aspect) of its linkage agreement by supporting VSC's graduate student research assistants (Ahene and Harmon) at UST to conduct their

thesis research for four months each; made appropriate arrangements for completing the staff exchange component (aspect) of its linkage agreement (to have UST's staff members in residence at VSC); supported one additional staff member (Mr. Moore) in residence at UST under the linkage program for eight months to conduct research and acquire knowledge and experience in an LDC; continued support of two research projects in LDC (Ghana), begun during the previous reported period, with Drs. Joshua and Anim-Appiah as co-principal investigators; supported one additional staff research project in Ghana under the linkage program, with Mr. Moore as the principal investigator; collaborated with UST in planning and organizing their (UST's) Rural Development Planning Conference (held April 1977); collaborated with the departments of Agricultural Economics, Land Economy and the Technological Consultancy Center in developing joint research proposals to be carried out under the grant extension; and recruited three Ghanaian students for enrolling at VSC under the linkage program.

VSC also explored linkage possibilities with Liberia and Nigeria during this reporting period. Two visits were made by PERD staff members (one by the Assistant Director, August 1976, and one by the Director, April 1977) in which linkage proposals were discussed with officials of the Division of Planning in the Ministry of Planning and Economic Development of Liberia and with administrators, faculty and staff of the University of

Liberia. No linkage agreement was reached due to the lack of preparedness on the part of a Liberian counterpart to BERD.

The attempt to establish a linkage with a Nigerian University emanate from a conference on "The Future Nigerian--U.S. Linkages in Higher Education", June 24, 1977. During this reporting period, only correspondence has been exchange between BERD and the Nigerian Embassy.

During this reporting period, VSC established linkages and networks with fifteen other 1890 Land Grant Colleges and Universities and Tuskegee Institute and twelve 1862 Land Grant Universities in the South East Consortium for International Development (SECID), with the Director of BERD (Dr. Battle as the VSC representative). VSC also became a member of the "International Peanut Research and Training Program" which consists of a consortium of the following institutions: University of Florida, Fort Valley State College, North Carolina State University and the University of Georgia.

VSC has also established linkages with a number of international organizations and organizations in LDCs. These linkages lend themselves to a free flow of information on research in LDCs. Through its BERD, VSC exchange information with a number of African universities and institutes in the following countries: Ghana, Nigeria, Kenya, Zaire and Cameroun. Among the international organizations with which VSC has formulated linkages and networks are: the United Nations' Food and Agricultural Organization (UNIFAQ), the Asian Development Institute (UNADI), Center -or Natural Resources, Energy and Transportation; and The International Bank for Reconstruction and Development (IBRD).

Expenditure during this reporting period for meeting this objective is estimated to be \$10,000.00, including \$8,500.00

for international travel and expenses (per diem allowance, etc); and \$1,500.00 for domestic travel and expenses.

- I.-J. Objectives/Outputs # (i,j): Improving and expanding reference center holdings (information capacity and dissemination); and collecting, evaluating and disseminating useful, updated information related to Agricultural Economics and Rural Development.

During this reporting period, BERD improved and expanded its reference center holdings through acquisitions of journals, periodicals, books and reading materials. Particular attention was focused on the acquisition of materials and information on LDCs. The acquisition of a resource person (Ms. Tuthill) enabled BERD to establish linkages and networks with LDC institutions, U.S. institutions and international organizations; and to search and inventory Africa, LDC records and files, and U.S. institutions for data and information on agricultural, economics rural development.

BERD disseminated information about its research through its BERD's EYEVIEW publication which is published on a quarterly basis. Its research findings are published in monographs and working papers which are disseminated to institutions and organizations in its linkages and networks and to people (consumers) in the various research areas. The BERD staff members also presented professional papers at meetings, conferences and seminars; and the graduate student research assistants prepare theses on their research work and these are also available for dissemination.

Total expenditure for the reference center and activities under these objectives/outputs is estimated at \$2,500. Of this

amount, approximately \$200.00 is supported by Virginia State College.

III. IMPACT OF GRANT SUPPORTED ACTIVITIES IN ACHIEVING GRANT PURPOSE

The activities of the Bureau of Economic Research and Development continue to impact positively on the South Central Virginia study area, the Commonwealth of Virginia and parts of West Africa (Ghana in particular). The impact of the grant supported activities are summarized below.

Expanded Knowledge

Staff members of the Bureau of Economic Research and Development have acquired expanded knowledge and expertise concerning the problems and solution to these problems of rural development, domestically and in LDCs. The capacity of VSC, through its BERD, to identify, evaluate, and analyse research projects and implement the results of such projects has increased significantly with approximately 22 man-months of staff time spent on research projects and other rural development activities in LDCs. All of the "core" BERD professional staff (five and one-fourth full-time equivalent) have been exposed to activities in LDCs. Faculty members at VSC, who are associated with grant supported activities in BERD, have been exposed to rural development problems similar to those in LDCs, with a view of telescoping the methodologies to LDCs for solution of problems. VSC staff members of BERD have also acquired knowledge about and materials on LDCs that are useful in teacher-learner situations, through teaching, seminars, conferences, research, and collaboration/cooperation with LDC professionals.

Advisory Capacity

The BERD staff, which is directly responsible for carrying out the grant supported activities, and other VSC staff/faculty associated with the grant supported activities have not been given the expected support by AID for participating in consultative/advisory activities. Of the 12-16 man-months made available by BERD/VSC for AID utilization, less than one man-month was utilized during this reporting period. However, one staff member participated in AID activities that were important in achieving the grant purpose.

BERD staff members served in a consultative/advisory capacity to LDCs (Ghana and Liberia) under the VSC linkage program with UST, Ghana, and in exploring with Liberia the possibility of establishing a linkage program in that country. The utilization of this capacity by LDCs was in the form of planning rural development programs, developing research project proposals, and planning seminars and conferences on rural development.

Education and Training

BERD and its staff members supported and/or supervised six students at the graduate level in research and development activities during this reporting period. Research proposals, questionnaires and survey materials were developed by the students and supervised by the BERD staff. Research projects were completed and theses written by the graduate students and supervised by the BERD staff. Monographs were prepared jointly by the students and the professional research staff. Formal and informal seminars were

conducted by the BERD staff on such topics as research methodologies, theses writing, data collection and analysis, and interpretation of results.

BERD and its staff supported and/or supervised five undergraduate students during this reporting period. These undergraduates were the last of the seven who were enrolled in the BERD's AID scholarship program during the last four years. These students were exposed to empirical and theoretical analyses and methodologies in the treatment of problems in rural development.

Both the graduate and the undergraduate students benefitted significantly from their association with BERD/VSC staff and faculty members, and from the 18 semester hours of courses taught in Economics and Agricultural Economics during this reporting period by the BERD research staff.

BERD was instrumental in assisting the Department of Economics in its recruiting of graduate students. During this reporting period, the number of graduate student research assistants supported by BERD constituted approximately 50 percent of the full-time graduate students in Economics. Moreover, BERD research constitutes an integral part of the Economic Department's research focus for graduate students, with about 66 percent of the masters' thesis completed during this reporting period being from BERD supported projects.

Financial assistance to students supported by BERD in the form of stipend, tuition and research funds amounted to approximately \$27,272.50 during this reporting period. BERD staff time devoted

to teaching in academic departments is estimated at a cost of \$14,000.00. This represents the cost of about 8 man-months of BERD staff time. Ancillary benefits to students and academic departments include BERD staff time devoted to department meetings and the advising of undergraduate and graduate students. Approximately 4 man-months were devoted to these during this reporting period.

Linkages and Networks

The 22 man-months of BERD staff in LDCs (Ghana and Liberia) strengthened and expanded the VSC linkage program with LDCs with benefit accruing to: the staff members themselves in the form of expanded knowledge; the LDC institutions and their staff, faculty, and students in the form of expanded knowledge, education and advisory service; the College (VSC) itself in the form of expanded capacity; and AID in the form of advisory/consultative service availability.

The establishing of linkages and networks with U.S. institutions (i.e., SECID) and with national and international organizations has helped to strengthen the capacity of VSC and the capability of its staff/faculty members through the sharing of information, collaboration and cooperation with professional staff of LDCs, AID, U.S. institutions and international organizations.

Information Capacity and Information

Grant supported activities in this category have enhanced the capacity of VSC and the capability of the VSC/BERD staff members in the design, analysis and evaluation of AID and LDC projects.

The updated reference center and resources in it were useful in the search and inventory of Africa, international centers, LDC and U.S. institutions for data and information on agricultural economics and rural development. The resources of the reference center served to facilitate academic as well as research work at VSC by the various schools and departments. The collection and dissemination of research publications and documents have helped to broaden the scope of research activities at VSC, to open lines of communication with research centers and institutions, and to provide a means for collaborative and cooperative arrangements with professionals in the areas of rural, agriculture, and economic development.

IV. OTHER RESOURCES FOR GRANT-RELATED ACTIVITIES

The Bureau utilized \$60,000 of state-supported funds to support grant related activities. This fund was used to support salaries, research activities, and travel that were domestic in nature. All overhead cost was paid from resources other than 211(d) funds. This cost included housing, vehicle for transportation, communications and publication. Efforts continued during the fifth year of this grant to secure additional resources for grant-related activities. Although it had been approved at the end of the fifth year, BERD is confident that funds will be received from Cooperative State Research Service at VSC. Funding decisions were postponed until the fall of 1977.

V. UTILIZATION OF INSTITUTIONAL RESPONSE CAPABILITIES IN DEVELOPMENT PROGRAMS

A. Requests for services and technical assistance during this reporting period have been less than expected from US-AID, but comparable to those of the previous reporting period from academic

departments and institutions in the State of Virginia. Of the 12 - 16 man-months allocated for US-AID utilization, only one-half man-month was utilized. BERD, however, has responded to requests for information, data technical and advisory assistance to the following departments, school and organizations:

1. Department of Agriculture (VSC)
2. Department of Economics (VSC)
3. Department of Business Administration (VSC)
4. Department of Sociology (VSC)
5. School of Humanities and Social Sciences (VSC)
6. School of Business Administration (VSC)
7. School of Science and Technology (VSC)
8. Crater Planning District Commission of Virginia, Petersburg
9. State Office of Minority Business Enterprise (VSC)
10. Office of the Governor of Virginia
11. Cooperative State Research Service (VSC)
12. Cooperative Extension Service (VSC)

Requests for consultative/advisory services from LDCs increased this period over the previous period. BERD staff members have responded to requests for consultative/advisory service from: The University of Science and Technology (UST) in Kumasi, Ghana; The University of Liberia, Monrovia, Liberia; the Government of Ghana (Ministry of Economic Planning); and the Government of Liberia (Ministry of Planning and Economic Development).

Requests by U.S. organizations for professional papers and for participation in professional meetings and conferences increased

during this reporting period. BERD staff members responded to requests for professional papers, discussants and chairpersons for professional forums, workshops and conferences. BERD staff members actively participated in the activities of organizations such as: The National Economic Association; The American Economic Association; The American Agricultural Economic Association; The Southern Regional Science Association; The Chicago Economic Development Corporation; Southern Rural Development Centers; Small Farm Functional Network; The South East Consortium for International Development; The International Peanut Research and Training Program; and The Title XII Program.

- B. The number of graduate students from LDCs who are enrolled at Virginia State College increased during this reporting period. They are reported as follows:

7 Nigeria	3 Ethiopia
1 Namibia	2 Japan
1 Taiwan	2 Ghana
2 Indionesia	2 Thailand

Of these, three were supported under the grant program: Two from Ghana and one from Ethiopia.

The number of visitors and/or on-campus consultants at VSC during this reporting period is estimated to be seventy persons. Of these, fifteen off-campus persons consulted and/or visited with BERD; and twenty on-campus persons visited and/or consulted with BERD.

C The rural development linkage of Virginia State College and The University of Science and Technology progressed satisfactorily during this reporting period with the implementation of a more effective management working body of the BERD's counterpart (The Link Management Board) at UST. VSC through its BERD explored the possibility of a linkage program with the University of Liberia and The Ministry of Planning and Economic Development of the Government of Liberia. Two visits by BERD to Liberia for consultation and discussion to formulate a program took place during this reporting period. The result of these was to delay such a linkage until a counterpart to BERD could be established in Liberia with the support of the Liberian Government.

D. With regard to the VSC/UST linkage program in Ghana during the next reporting period, VSC will:

- (1) replace the present BERD staff member in residence at UST (Dr. Joshua) with another staff member (Dr. Acquah) for up to eighteen months with the objective of developing staff capability and the College's capacity to serve AID;
- (2) send a staff member (Dr. Whyte) to work out a program of activities consistent with the linkage agreement and the grant objectives, for the next two years under the grant extension;
- (3) invite two UST staff members to serve in residence at VSC for short-term duration, under the staff exchange component of the VSC/UST linkage program;
- (4) support three Ghanaian students in the graduate program in Economics at VSC;
- (5) send one staff to participate in linkage activities at UST for up to three months;
- (6) send one administrator to UST to assess and evaluate the linkage program;

- (7) collaborate with UST in holding a conference on rural development; and
- (8) explore effective means of working with the Government of Ghana on problems of rural development.

Virginia State College will continue to explore opportunities for the utilization of its capacity during this coming period FY 1978. It will, through its BERD, continue to explore new linkages with LDCs, U.S. institutions and international organizations. It will participate in activities of SECID in their contractual program with AID. It will explore opportunities with AID and LDCs for the utilization of its capacity.

VI. NEXT YEAR'S PLAN OF WORK AND ANTICIPATED EXPENDITURES

A. Expanded Knowledge

1. Field Research Projects in LDCs and LDC Related Domestic Research Projects.

Small field research projects will be carried out by VSC's professional staff in collaboration with LDC professionals. The following research projects will be carried out in Ghana under the UST/VSC linkage program.

- (a) "Customary Land Practices in Relation to Agricultural Production", with Dr. Emmanuel Acquah (VSC) and Professor Ben Acquaye (UST) as principal investigators;
- (b) "Economic Viability of Small Scale Farm in the Forest Zone of Ashanti", with Dr. Emmanuel Acquah and Mr. Opoku Debrah as principal investigators;
- (c) "Supply Responses of Cotton Farmers in Ghana: A Case Study of the Northern Region", with Regina Ohene-Darko (BERD Graduate Research Assistant) as principal investigator - (master's thesis);
- (d) "Enterprise Combination and Capital Requirements in Northern Ghanaian Agriculture" (a project extended from the previous period), with Drs. M.S. Joshua (VSC) and John Anim-Appiah (UST) as principal investigators;

- (e) "Customary Land Practices in Relation to Agricultural Production in Northern and Upper Region" (tentative title) with Emmanuel Gyawu (BERD Graduate Research Assistant) as Principal Investigator - (master's thesis);
- (f) "Economic Viability of Small Scale Farms in the Offinso Area of the Ashanti Region of Ghana" (tentative title) with Kojo Andoh (BERD Graduate Research Assistant) as Principal Investigator - (master's thesis);
- (g) Three (other) master's thesis to be developed and researched by the following graduate research assistants as principal investigators: Samuel Graham; Magid Dagher, and Francisca Maghalu;
- (h) "The Political Economy of Food Marketing in Ghana - 1975-1976" (A Ph.D dissertation begun in the previous period) with Mr. Franklin Moore (VSC) as Principal Investigator.

The following LDC related domestic projects will be conducted and/or completed during the next reporting period:

- (a) "Occupational Mobility of Rural Labor", with Emmanuel Acquah (VSC) as Principal Investigator;
- (b) "Labor Turn-over in Small Industries in South Central Virginia", with Emmanuel Acquah (VSC) as Principal investigator;
- (c) "Production and Marketing of Livestock in South Central Virginia", with Charles Whyte (VSC) as Principal Investigator and Michael Joshua (VSC) as Research Associate;
- (d) "Value of Farm Wives Time in Agricultural Production: A Case of South Central Virginia", with Emmanuel Acquah (VSC) as Principal Investigator;
- (e) "Factors Affecting the Labor Supply and the Earnings of Heads of House Hold in South Central Virginia", with Fred Lesnett (VSC) as Principal Investigator;
- (f) "Marketing Organization and Activities by County in South Central Virginia", with Samuel Moak (VSC) as Principal Investigator;
- (g) "Manpower Supply and Demand in South Central Virginia: A Targeted Area Information System for Facilitating Program Development, Educator, Guidance, and Client

Career Selection", with Don Chipley (VSC) as Principal Investigator;

- (h) One to two master's thesis to be developed and researched by graduate student research assistants of BERD.

The following LDC research projects will be completed during the next reporting period:

- (a) "Production of Agricultural Implements for use in Rice Production, Harvesting and Processing: Socio-Economic Aspects", with Michael Joshua (VSC) as Principal Investigator.
 - (b) "Transportation Problems and the Marketing of Food Crops for Small Farmers in Ghana: A Case Study of the Atebubu District", with Neal Harmon (BERD Research Assistant) as Principal Investigator.
2. Participation of VSC's staff/faculty in design, analysis and/or evaluation of US-AID projects in LDCs.

It is the College's intent to maximize the use of the available resources at VSC (man-months available), US-AID (travel per diem and salary) and elsewhere [i.e., consortium (SECID), linkages and networks] to improve and expand the knowledge base at VSC. The College, through its BERD, will provide 12 to 18 man-months of staff/faculty time for advisory/consultative services in identification, design analysis and evaluation of AID and other donor projects in LDCs.

The expected results are:

- (a) increased understanding of project identification, design analysis and evaluation in LDCs;
- (b) increased understanding of rural development problems in LDCs through site visitations and actual involvement in project identification, design, etc;
- (c) increased capacity at VSC to advise and consult on rural development problems in LDCs;
- (d) project reports and working papers on rural development problems in LDCs.

VSC's staff/faculty with qualification for participation
are as follows:

	<u>NAME</u>	<u>SPECIALITY</u>
(a)	Emmanuel Acquah (Ph.D Agri. Econ)	Production, Resources, Management and Development
(b)	Huey J. Battle (Ph.D. Agri. Econ)	Manpower, Marketing, Development
(c)	Michael Joshua (Ph.D Economics)	Credit, Management, Development
(d)	Frederick Lesnett (Ph.D. Sociology)	Rural Sociology, Resources
(e)	Samuel Moak (Ph.D. Bus. Adm.)	Marketing, Management
(f)	Franklin Moore (ABD Agri. Econ)	Marketing, Development
(g)	William Richie (Ph.D Economics)	Development, Resources
(h)	Janet Tuthill (M.A. Int. Studies)	Resources, Sociology, Development, Education
(i)	Charles Whyte (Ph.D Agri.Econ/Econ)	Production, Marketing, Resources, Development

The anticipated expenditure for this category (A. Expanded
Knowledge) is estimated at \$54,500.00 as follows:

- 12-18 man-months staff/faculty time:	24,000.00
- LDC research projects (in Ghana)	10,500.00*
- LDC related domestic research	5,000.00*
- International travel and expenses	15,000.00

*Does not include salary of staff/faculty

It is anticipated that the US-AID requestors will pay the costs of transportation and per diem allowance for VSC's staff/faculty participating in project design, analysis, etc.; and the salary of VSC staff members who are not paid from grant extension funds. The international travel and expense allocated above will cover the costs of VSC's BERD staff in their involvement with projects in Ghana and elsewhere.

B. Advisory and Consultation Services

Increased and/or improved "core" staff and VSC's staff/faculty capability in research of rural development problems to respond to AID's and LDC's requests for consultation and advisory services in design, analysis and evaluation of projects.

VSC can utilize grant funds in this regard in a limited way only. It is expected that the cost of travel and per diem allowances (for members with salary from grant funds) plus salary (for members with salary from elsewhere) of staff/faculty members selected by US-AID and/or other donors for participation will be paid by the requestor.

VSC will provide up to four of the nine (a - i) staff/faculty listed above during the next reporting period for participation in AID projects.

The expected results are as follows;

- (a) increased understanding of project identification, design, analysis and evaluation in LDCs;
- (b) increased understanding of rural development problems in LDCs through site visitations, interaction with AID mission personnel, LDC institutions and professional staff knowledgeable of LDC problems;
- (c) increased capacity at VSC to advise and consult on rural development problems in LDCs;
- (d) reports of analyses and evaluation of problems in LDCs.

The anticipated expenditures for this category (B. Advisory and Consultation Services) are presented above under (A).

C. Education and Training Capacity

1. The Master's Degree Program at VSC.

In collaboration with the Departments of Economics and Agriculture, BERD will support six new graduate students research assistants during the next reporting period; and continue to support three research assistants for up to three (3) months, FY 1978. Of the six students; three will be Ghanaian sponsored under the VSC/UST linkage program; one will be Nigerian; and the remaining two will be U.S. Citizens. There will be four males and two females students consistent with consideration to minorities and women. The three Ghanaian students will develop their research proposals and collect the data and information for their theses under the supervision of VSC/BERD staff at UST before enrolling in the graduate program at VSC. The U.S. students in the program will receive exposure to the conduct of research in LDCs by the most feasible means.

Other students enrolling in the graduate program in Economics at VSC will receive the benefit of the experience (knowledge) of the BERD staff through formal academic courses taught by them. In addition to the formal courses, the BERD staff will offer informal seminars, short courses and practical training in research techniques to the graduate students.

The expected results are as follows:

- (a) Nine students will be trained in economic development with: three - four receiving practical training in LDCs; one - two completing the master's degree; and one to two participating in project design, analysis and/or evaluation of projects in LDCs.
- (b) Up to 30 graduate students receiving training in Economic Development and other areas of Economics, with direct and indirect support of the grant extension funds.
- (c) Increased capacity at VSC to train students in Economics and, in particular, Economic Development.
- (d) Increased awareness and understanding by students of the problems of LDCs and, in particular, of rural development in LDCs.

The anticipated expenditures for this category (C.1- Education and Training Capacity) are estimated as follows:

Student Research Assistant

stipend	\$24,000.00
tuition and fees	9,000.00
research	<u>2,000.00</u>
TOTAL	\$35,000.00

Staff/faculty

15 man-months
(including salary and
fringe benefits) \$30,000.00

2. Seminars, workshops, short courses and conferences

These will fall into two general categories:

- (a) limited participation; and
- (b) unlimited participation.

The former will be designed for students, faculty and staff participation and will consist of lectures, presentations and discussions of research and proposals. The latter category will be international in scope and oriented toward issues and problems concerning rural development in LDCs. Participation will include professionals and students from LDCs, U.S. institutions, international organizations and AID. It is the intent of VSC/BERD to hold a total of eight seminars, two short courses, one conference and one workshop during the reporting period of FY 1978.

The expected results are as follows:

- (a) improved capability of staff/faculty and students at VSC;
- (b) increased the utilization capacity of VSC for utilization by AID and other donors.

The anticipated expenditures for this category (C.2 - Seminars, etc.) are calculated above under (C.1),

3. LDC Staff Training and Research Projects

Under the VSC/UST linkage program, the research projects to be carried out during the reporting period of FY 1978 will provide opportunity for at least five (5) LDC professional staff and eight (8) LDC students, and up to eight LDC field workers to receive training and experience in the conduct of rural development research.

The expected results are:

- (a) increased understanding of LDC personnel in project identification, design, analysis and evaluation of rural development problems;
- (b) increased response capacity of VSC/UST (linkage program) to respond to AID's and the Government of Ghana's requests for advisory and consultation services;
- (c) project report and papers on rural development problems in LDCs.

The anticipated expenditures are calculated above under the categories A, and C.1.

D. Linkages and Networks

1. Strengthen existing Rural Development Linkages with LDCs (Ghana); establish new linkages and network; and collaborate with AID, LDC, U.S. and international institutions.

The College will provide 12 man-months of "core" BERD research staff members (Dr. Acquah-scheduled to be in residence at UST) assigned to work cooperatively and collaboratively with professionals in LDCs with which linkage programs have been established. Up to six "core" BERD staff will be involved in: research work; advisory supervisory and consultative services; and limited teaching assignments in LDCs.

The College, with the use of grant funds, will support up to nine (9) man-months of LDC (linkage) staff members assigned to VSC to work cooperatively and collaboratively with VSC professionals. The College will support up to 20 man-months of LDCs (Ghana) graduate student research assistants in LDC and at VSC for assisting in the conduct of research work on problems of rural development. The College, with the use of grant funds, will support conferences, seminars and workshops on problems of rural development in LDCs.

The expected results are;

- (a) increased capacity at VSC to respond to AID and LDC requests for advisory and consultation services;
- (b) increased staff capability for utilization by AID and LDCs;
- (c) increased capacity in LDCs and capability of LDC staff/faculty members to conduct research on rural development problems;
- (d) increased information and data base for utilization by VSC, LDCs, AID, and other institutions involved in rural development work in LDCs;
- (e) project reports, working papers, monographs, theses and publications of works on problems of rural development in LDCs.

The anticipated expenditures, with the exception of LDC staff exchange shown below, have been calculated in the other categories above (A, C.1, and C.2),

- LDC staff/faculty at VSC

6 man-months		\$12,000.00*
Allowances		2,000.00
	TOTAL	<u>\$14,000.00</u>

*Including fringe benefits

E. Information Capacity and Dissemination

Library acquisitions; reports of research (publications, conferences proceedings, etc.); search, inventory and disseminate information,

VSC, through BERD, with the use of grant funds will utilize its resource person (Ms. Tuthill) hired during this (FY '77) reporting period to further develop its information storage and dissemination capacity. Up to ten (10) man-months will be devoted to the development of this capacity. BERD will continue to utilize its part-time librarian and support staff in this endeavor. Grant funds will be utilized to acquire books and periodicals for research and academic support. Grant funds will also be

utilized to defray the cost of monograph preparation, printing and distribution.

The expected outputs (results) include:

- (a) up to three master's thesis;
- (b) at least three research monographs;
- (c) at least six reports on projects in LDCs;
- (d) at least four quarterly newsletters;
- (e) at least three (3) working papers;
- (f) increased information storage and dissemination capacity of VSC; and
- (g) increased knowledge base of VSC's staff/faculty and students.

The anticipated expenditures are estimated as follows:

- 10 man-months staff time (including fringe benefits)	\$ 8,100.00
- Acquisitions	\$ 2,500.00
- Publication & Distribution	\$ 4,000.00
TOTAL	<u>\$14,600.00</u>

VII. INVOLVEMENT OF MINORITY PERSONNEL AND WOMEN

Of the seven male members of BERD staff who worked full or part-time during the fifth year of this grant, five were black, one white, and one oriental. Of the seven, there is the Director, Assistant Director, and five Research Associates. There are three females (two blacks and one white)--Administrative Assistant, Secretary, and Research Associate (resource person). There are three research assistants, two blacks and one white--all male. Five additional research assistants are expected to join BERD in the fall of 1977.

A P P E N D I C E S

- I. BERD Staff
- II. Abstract And Progress Reports
- III. Comprehensive Review of VSC-UST Rural Development
Linkage in Ghana

BERD STAFF

The staff working in the Bureau during the July 1, 1976 to June 30, 1977

period include:

- Dr. Huey J. Battle, Director
- Dr. Charles D. Whyte, Assistant Director
- Mrs. Juanita Spencer, Administrative Assistant
- Mrs. Mary P. Glass, Secretary
- Dr. Emmanuel T. Acquah, Assistant Research Associate
- Dr. Michael S. Joshua, Research Associate
- Mr. Franklin C. Moore, Assistant Research Associate
- Ms. Janet C. Tuthill, Assistant Research Associate
- Dr. Donald Chipley, Research Associate (Summer, 1977)
- Dr. Fred Lesnett, Assistant Research Associate (Summer, 1976 and 1977)
- Dr. Samuel Moak, Research Associate (Summer, 1976 and 1977)

GRADUATE STUDENT RESEARCH ASSISTANTS

- | | |
|------------------------|----------|
| 1. Mr. Rexford Ahene | Ghana |
| 2. Mr. Mesfin Bezunch | Ethiopia |
| 3. Mr. Agyapong Gyekye | Ghana |
| 4. Mr. Neal Harmon | New York |
| 5. Mrs. Lelia Hudgins | Virginia |
| 6. Mr. William Walker | New York |

UNDERGRADUATE AID SCHOLARS

(All of Virginia)

- 1. Anna Bradley
- 2. Terri Coles
- 3. LaFawn Davis
- 4. Edward Harper
- 5. Gary Williams

UNDERGRADUATE EMPLOYED IN BERD

- 1. Miss Betty Glass
- 2. Miss LaFawn Davis

SUMMARY ACTIVITY FOR THE REPORTING PERIOD(FY 1977)

Emmanuel Turkson Acquah
(Assistant Research Associate)

Dr. Emmanuel T. Acquah joined the Bureau of Economic Research and Development as an Assistant Research Associate in September 1976. His background is in Resources, Production and Management Economics.

Research Activities

Dr. Acquah has been the principal investigator of the following projects at BERD:

- (1.) "An assessment of Human Resources in South Central Virginia." The main objective of this project is to assess the supply and demand situation of human resources with projection for 1980. The role and value of voluntary organizations which provide services to youth groups, senior citizens, rescue squad, fire department, and community health programs are provided for each county or area. A final report of the study is soon to be published as a BERD monograph.
- (2.) "An inventory of Natural Resources in South Central Virginia." This is a descriptive analysis of natural resource endowment in the BERD lab area. The unit-of analysis is county or county and independent city area. The project is expected to be completed by the end of July 1977.
- (3.) "An assessment of the value of Farm Wives' Woman Power in Agricultural Production in Virginia." The main objectives of this project are to (a) to develop farm-firm production function and estimate the function for agricultural firms in Virginia, (b) to quantify farm wives' human resources allocated to family farms and determine if such resources are efficiently allocated. A preliminary report on the project is expected to be completed by July 31, 1977.
- (4.) "Occupational Mobility and Human Resources Utilization in Rural Virginia." The general objective of the project is to analyze the occupational mobility among farm workers over the period from 1965-70. Two major specific objectives to be accomplished are: (a) to determine the distribution of labor movement of farm workers into various occupations, and (b) to determine the responsiveness of farm workers to occupations with greatest growth in employment, and differences in the level of earnings among occupations. A preliminary report of the study is expected to be completed by July 31, 1977.

In addition to the above four projects, Dr. Acquah has been a co-author of:

- (1) "Human Capital and Labor Turnover in Manufacturing Industries: The Case of an Economically Depressed Region in South Eastern Ohio: Economics and Sociological Occasional Paper No. 405, published by the Ohio Agricultural Research and Development Center and the Ohio State University;
- (2) "An Evaluation of Institutional Credit and its Impact on Agricultural Production in Ghana, 1962-1972," Bureau of Economic Research and Development (monograph forthcoming, 1977).
- (3) "Labor Productivity and Turnover in Manufacturing Industries," a paper submitted to the Southern Journal of Agricultural Economics for consideration, May, 1977.
- (4) "Allocative and Worker Effects in Manufacturing Production: An Evidence from Ohio," a paper submitted to the American Journal of Agricultural Economics for consideration, June, 1977.

Teaching and Related Activities

During the reporting period, Dr. Acquah taught the following courses at Virginia State College:

- (1) Micro Economic Principles and Theory (Econ. 57) in the department of Economics.
- (2) Advanced Farm Management (Ag. Econ. 440) in the department of Agriculture.

Dr. Acquah was the major thesis research supervisor of Mr. Agyapong Gyekye (Graduate Research Assistant at BERD) during the reporting period. The thesis entitled "An Evaluation of Institutional Credit and Its Role in Agricultural Production in Ghana" was completed and accepted by the graduate school in April, 1977.

As the chairman of the BERD seminar committee, Dr. Acquah organized 11 seminars during the reporting period. Dr. Acquah presented the following papers at BERD seminar Series:

- (1) "Human Capital and Labor Turnover in Manufacturing."
- (2) "Farmers Cooperatives and the Agricultural Revolution in Ghana."
- (3) "An Assessment of Human Resources in South Central Virginia."

Dr. Acquah served as a discussant on "Social-Economic Appraisal of Minority Business Opportunities in International Trade," at the Eastern Economic Association Meeting, In Hartford Connecticut on April 14, 1977.

DONALD R. CHIPLEY
(RESEARCH ASSOCIATE)

Dr. Donald R. Chipley joined the Bureau of Economic Research and Development (BERD) as a full-time Research Associate on June 13, 1977. He is also a Program Development/Evaluation Specialist with the Title III Innovative Curriculum Design Program, and an Associate Professor of Education. His background is in educational program development and evaluation and applied research of innovative projects (e.g. career education). His responsibilities have been in two major areas, program support development and educational research. His research activities with BERD during July 1, 1976 through June 30, 1977 began in December, 1976 and developed as follows;

Early in December he met with Dr. Battle to discuss research relating to education's role in manpower development in the seventeen county South Central Virginia area. A week later he discussed the same idea with Dr. Whyte and how it might be developed into a BERD related research area thrust. Proposal drafts were developed during January and February and after several critical readings by Dr. Whyte they were refined into a final 20 -page proposal which was approved for support on March 15, 1977. Since that time, Dr. Chipley's research has progressed through two main periods of investigation. The first, from March 20 through June 10 involved preliminary research on background resource materials and central developmental concepts. The second, from June 13 to June 30 involved full-time intensive research on the basic project components described below.

A vast amount of manpower development information is produced by federal, state, and local agencies. Usually, however, little is done to translate the information into a form which will enable those in local communities, who must daily deal with the problems of career orientation and vocational preparation, to take advantage of this resource. The investigator believes steps can be taken to

involve a wider audience of local consumers in the use of manpower demand and supply data. These steps are pinpointed in a project proposal, "Manpower Supply and Demand in South Central Virginia: A Targeted Area Information System for Facilitating Program Development, Educator Guidance, and Client Career Selection."

The overall goal of the project is to produce a targeted area information system (TAIS) on manpower development for seventeen South Central Virginia counties and to combine this system with several sets of user specifications to create differentiated user guides for education program planners, educator-implementers, and client-trainees. These guides will provide South Central Virginia consumers with a practical resource manual which should help them use manpower data both to plan and implement more relevant training programs and to make a better match between available job and program resource opportunities.

The nature of the information system and the resource guides, will be shaped in light of the following six specifications:

1. Determine and profile information on major areas of demand needs in the U. S., Virginia, and the South Central Virginia area for the decade 1975-85.
2. Determine and profile information on major supply resources and production in South Central Virginia secondary and vocational technical schools, two-year branch and community colleges, and special manpower training and other adult education programs for the same decade 1975-85.
3. Determine and profile information on major discrepancies between manpower demand area opportunities and supply area resource/production opportunities.
4. Synthesize the above data profiles into composite manpower demand/supply Survey Resource Data Report for the South Central Virginia.
5. Translate selected parts of the data profile system into a targeted area consumer information system with appropriate visuals and commentary.
6. Develop several supplementary sets of user (program developer, educator-implementer, and client trainee) specifications and package them along with the TAIS into a series of consumer resource guides.

Moreover, continuity among the specifications is to be further realized by gathering and processing the information in light of the 15 career cluster (Agribusiness and natural resources, Business and Office, Communications and media, Construction etc,) established by the U, S, Office of Education in 1971 as a means for organizing the hundreds of occupations found in the world of work,

The above descriptive study will be done during June and July of the summer of 1977. Plans are to write up the information in a report consisting of three sections: (1) information on manpower employment and educational training opportunities; (2) the targeted area information system for the South Central Virginia area; and (3) differentiated sets of user specifications for planners, implementers and clients. Expectation is that the first preliminary draft of the study should be completed by August 15, 1977.

MICHAEL S. JOSIUA
(RESEARCH ASSOCIATE)

Dr. Michael S. Joshua has been a Research Associate on the staff of the Bureau of Economic Research and Development (BERD) since January, 1975. As a Research Associate he has participated in the research, teaching, and conference program of BERD.

In January 1975, the BERD consummated an economic development linkage with the University of Science and Technology (UST) in Kumasi, Ghana. This agreement inter alia provided for the exchange of staff who would conduct and coordinate the research projects approved and funded under the linkage program; participate in the teaching program at UST; work with the Link Management Board on matters relating to the linkage program; and assist with the organization of planned conferences.

Dr. Joshua was the first staff member of BERD to be assigned to UST, Kumasi, Ghana. For the duration of this reporting period he was still on assignment. There were three main components to the assignment given to Dr. Joshua:

(i) Research Program

Under the linkage program two research projects were approved for funding by BERD. These projects were to be executed in Ghana:

- (a) Enterprise Combination and Capital Need in Northern Ghanaian Agriculture: Case Study of Kumbungu District.
- (b) Socio-Economic Aspects of the Introduction of Implements for use in Rice Production and Processing in Northern Ghana.

During the reporting period Dr. Joshua collaborated with members of the Agricultural Economics Department at UST (Drs. Anim-Appiah and Prakah-Asante) in carrying out the above research projects. Specifically he worked with them to develop survey instruments and other preliminary aspects as required for executing the field work.

aspects of the research projects such as planning field trips and co-ordinating the activities of the field workers.

During the reporting the first phase of the Enterprise Combination Study was completed--the year long monitoring of a sample of one hundred and sixty farmers for the purpose of recording and measuring all aspects of their farming activities. Plans are now underway to complete the data collection and begin work on the analytical aspects of the study. According to Dr. Joshua the result of this study should be available by the Summer of 1978. As the regard to the socio-economic study--project (b) above the field work has been completed and Dr. Joshua is currently writing up the report. This report is expected to be ready for publication by the end of 1977.

(ii) Teaching Activities

During this reporting period Dr. Joshua taught two courses in the Department of Agricultural Economics at UST. These were (1) Macroeconomic Theory for graduate students, (2) Project Analysis for undergraduates. Dr. Joshua was responsible for developing the syllabus and reading list for the project analysis course. It was taught in the department for the first time.

(iii) Other Activities

(a) Rural Development Conference

During this reporting period an International Conference on Rural Development was successfully held at UST Kumasi April 11-16, 1977. This conference attracted participants from the United States, Ghana, Nigeria, and the Cameroons. As BERD staff member at UST Dr. Joshua was assisted with the organization of the conference. Dr. Joshua was made Secretary of the Organizing Committee. This position entailed the co-ordination of all activities relating to the conference--communication with participants, soliciting and co-ordinating the preparation and dissemination of conference papers, fund raising to meet the expenditures of the conference. Dr. Joshua is expected to collaborate with Dr. Anim-Appiah in preparing the edited proceedings of the conference.

Dr. Joshua served as an exofficio member of the Link Management Board. In this capacity he worked with the staff of the board to make the appropriate arrangements for the visits of BERD staff and students to UST, Kumasi. On the basis of decisions taken by the LMB and the Management Group of the LMB he was charged with the task of encouraging the appropriate departments at UST to submit research proposals for consideration for funding by BERD.

(c) Others

(i) During the reporting period Dr. Joshua participated in conference works and seminars at the University of Ghana, and UST. At UST he served on a panel during the 6th agriculture conference: "Import Substitution Problems of Industrial Development." During the Agricultural week he delivered the keynot address to the faculty: "Agriculture as a Tool for Fighting Inflation."

(ii) During the period Dr. Joshua kept in touch with USAID/ Accra, with a view to monitoring the activities of interest to program in Ghana. Together with other members of the Agricultural Economics Department he held discussions on possible collaboration of UST/VSC in the USAID Midas program which is now being implemented in the Atebubu District. A program of collaboration is being wroked out with the researchers and UST staff.

(iii) Dr. Joshua accompanied the Director of BERD to Liberia for the purpose of exploring feasibility of establishing some relationship with the University of Liberia and the Government of Liberia. During this time discussions were held with the officials of the University of Liberia. The idea of a linkage was well received but it was felt that it could be initiated by assistance to University of Liberia setting up an agency for rural development. Exploratory discussions were also held with the USAID Mission to Liberia.

Dr. Frederick S. Lesnett joined the staff of the Bureau of Economic Research and Development on June 2, 1977. Dr. Lesnett, an Assistant Professor at Virginia State College, will be serving with BERD until August 12, 1977. His formal educational training is in the area of Sociology.

During the last year, Dr. Lesnett has been constructing a socioeconomic profile of the Rural Manpower Study's household heads and comparing this profile with comparable United States and Virginia based data. The breakdown of the household heads in the Rural Manpower Study on the sociological variables of race, sex, marital status, age, education, number of persons and number of children in the household, and occupation has been undertaken and compared with national and state data. Also, the study area's household heads were compared on such economic dimensions as labor supply, hourly and weekly earnings, gross income, and employment status with their national and state counterparts. Additional tables and descriptive matter were compiled which revealed the relative economic position of the Rural Manpower Study's household heads on earnings, gross income, and employment status while controlling on certain sociological dimensions. The basic goal of examining the relative socioeconomic status of the Rural Manpower Study's sample has been accomplished. The final editorial work is now being completed on this monograph. In order to complete this study, Dr. Lesnett had to accomplish several tasks. First, the 8582 cards of the Rural Manpower Study had to be read to tape. Second, sources of comparable national and state data had to be located. Third, the sociological and the economic indexes used in the national and the state data had to be specified. Fourth, comparable indexes had to be constructed from the data in the Rural Manpower Study. Fifth,

additional computer time had to be solicited from the School of Humanities and Social Sciences at Virginia State College. Sixth, the final stage in the project involved the actual drafting of the manuscript. As mentioned earlier, the final draft of the monograph is in the process of being edited.

Beginning on July 2, 1977, Dr. Lesnett has begun work on constructing models for explaining the variations in the earnings and the labor supply of the male and the female household heads from South Central Virginia. Regression analysis will be used to construct the models on earnings and labor supply from the data available in the Rural Manpower Study on various sociological and economic variables. Since June 2, the following work on the earnings and the labor supply analysis has been undertaken. First, a survey of the literature was made in order to determine those socioeconomic variables considered to be relevant for modeling labor supply and earnings. Second, the social psychological items from the Rural Manpower Study's questionnaire were factor analyzed in order to construct indices from these items. Third, efforts are now underway to check on the completeness of the available data and to construct a correlation matrix from which the regression analysis will be run.

SUMMARY OF ACTIVITIES FOR THE REPORTING PERIOD (FY 1977)

SAMUEL K. MOAK

(RESEARCH ASSOCIATE)

Dr. Samuel K. Moak has been a Research Associate of the Bureau of Economic Research and Development (BERD) since June 1, 1975. He is also Professor of Marketing in the Department of Business Administration, Virginia State College. His background is in Marketing, Economic Development, and Statistics. His major responsibilities have been in two areas such as research and teaching. His research activities with the BERD during July 1, 1976 through June 30, 1977 have been most productive and described as follows:

During the months of June, July, and August of 1976, Dr. Moak was extensively involved with the study of Manufacturing and Service Activities in South Central Virginia. This work is finished and is now ready for its publication as a monograph in 1977.

Broad objective of this exploratory research project was to present a profile of the manufacturing and service activities in South Central Virginia. The study depicts a general profile of the structural changes that have taken place in the area economy and the role that the manufacturing and service sectors have played over the past two decades in the structural transformation. The descriptive analysis covers value added by manufacturing establishments, employment and wage structures, and selected industries along with tourist and financial developments in South Central Virginia.

A limited analytical approach within the framework of descriptive analysis was adopted for this project. Within this broad framework, an intensive utilization of the secondary sources was undertaken for the most of this study. The primary data was used, to some extent, to supplement the secondary data

whenever the need appeared to be important. Overall plan was to minimize the use of the primary sources, because of an easy access to the secondary data, and restricted time and manpower availability to undertake the survey.

During the month of June of 1977, Dr. Moak has been working on the project of Agricultural Activities in South Central Virginia. The first draft on this project is accomplished. This study contains the work on farm enterprise, farm production, agricultural programs, and farm tenure. This project is a part of Socio-Economic Overview of South Central Virginia.

During the month of June, 1977, Dr. Moak is also working on the study of Marketing Structure and Performance by County in South Central Virginia. This micro study of the marketing activities by county is motivated by the needs of potential investors, county officials, public policy makers, and businessmen in general to be aware of the types of marketing structure and its operation in their immediate market areas. Major objectives of this research project are (1) to describe the current marketing structure of each county, including local trade centers, trade pattern, product channels, method of transportation, market institutions, and market organization; (2) to evaluate the importance and potential of each product to the economic development of each county; (3) to measure and determine the efficiency and performance of the existing marketing system in each county; and (4) to identify the problems and issues of marketing operation in each county, and analyze the problems of each in relation to the area as a whole, and to make appropriate recommendations.

Due to some limitations of the availability of secondary data, the collection of primary data on market structure, product flow, method of transportation, institutions and organization would be undertaken by means of mail

questionnaires and personal interview. This project also encompass the analysis on regional market pattern, importance and the potential of major products in each county. In its construction of the monograph, the appropriate presentation of statistical tables will supplement the informative writings so that the readers can follow the research paper easily.

The first preliminary draft on "Marketing Structure and Performance by County in South Central Virginia" should be completed by August 15, 1977.

Dr. Moak has taught Marketing Management and Personal Selling during the regular semesters. In addition, limited research work has been conducted by Dr. Moak throughout the reporting period.

FRANKLIN C. MOORE

(Assistant Research Associate)

Franklin C. Moore joined the staff of the Bureau of Economic Research and Development on January 1, 1976. Mr. Moore received a B.A. Degree in Economics from Yale University and a M.S. Degree in Agricultural Economics and a Certificate in African Studies from the University of Wisconsin. He has also worked in the Corporate Development Division of the Dayton Hudson Corporation. He is currently a Doctoral candidate in the "Ph.D. in Development Studies Department" at the University of Wisconsin. His dissertation is in the area of Agricultural and Rural Development in Ghana, and is entitled "The Political Economy of Food Marketing in Ghana."

PROFESSIONAL ACTIVITIES AT B.E.R.D.

The professional staff at the Bureau is involved in research activities, teaching, advising graduate students, and assisting in the development of seminars and workshops sponsored by BERD.

I. Research:

Within BERD, Mr. Moore was involved in researching aspects of Agricultural Marketing. He is currently involved in writing on the Small Farmer and Agricultural Marketing in South Central Virginia. This study deals with the changes taking place in Agricultural Marketing in the United States, the special problems of the small farmer as he faces these changes, and the marketing of four specific crops by small farmers in geographical regions of South Central Virginia. Mr. Moore also spent the time between December, 1976 through the end of the fiscal year in Ghana, West Africa researching on the

Political Economy of Food Marketing in that country. This study deals with aspects of the Ghana Food Distribution Corporation, a state corporation charged with the task of purchasing, transporting, and selling foodstuffs, and the corporations relation to farmers and private food marketers.

II. Teaching:

During the fall semester of academic year 1976-77, Mr. Moore taught an undergraduate course in the Agriculture Department entitled "The Management of Non-Farm Agricultural Business."

III. Graduate Student Activities:

Mr. Moore supervised the preparation and field data collection of the thesis of Mr. Neal Harmon. Mr. Harmon spent three months in Ghana under Mr. Moore's supervision researching on the problems of transportation in marketing foodstuffs in Ghana.

IV. Seminars and Workshops:

During the fall term of the academic year, Mr. Moore conducted a seminar entitled "The Coming of Age of Africa." This seminar dealt with the changing position of Africa in World Affairs and the relative importance of Africa to the Economic well-being of the United States. This seminar included guest lectures from: Dr. Richard Ralston, Professor of History at the University of Wisconsin-Madison; Dr. Ray Kea, Professor of History at Johns Hopkins University; Dr. Samuel Adams, former head of the African Bureau of the Agency for International Development; and Mr. Sheldon Cole, Head of Project Design for the Southern African region.

V. Miscellaneous:

During the fall semester of the academic year, Mr. Moore was called upon to give several lectures on economic development in the Departments of History and Political Science; and several lectures on agricultural economics within the school of agriculture.

SUMMARY REPORT OF ACTIVITIES

Janet C. Tuthill

ASSISTANT RESEARCH ASSOCIATE
AND RESOURCE SPECIALIST

Ms. Janet C. Tuthill joined the BERD staff as an Assistant Research Associate March 1, 1977. Her background is in African studies, international organization and voluntary agency development assistance. Besides research on selected development topics in conjunction with other BERD staff members, her responsibilities include obtaining and disseminating resource materials for the Bureau and editing the BERD's EYEVIEW. She will also be teaching for the School of Arts and Sciences at Virginia State College during the 1977-78 academic year.

Ms. Tuthill earned a B.A. in French from the College of William and Mary and an M.A. in International Studies from the University of Denver. Upon completion of her graduate work she completed a contract research project for the U.S. Agency for International Development and Department of State on drought relief assistance to the Sahel region of West Africa. This research included travel to Senegal, Mali, Upper Volta and Niger to interview local officials and U.N. and voluntary agency field personnel. The resulting report is entitled "International Disaster Response: The Sahelian Experience" co-authored with Barbara J. Brown.

Since arriving in March, Ms. Tuthill has accomplished certain tasks within her job description area. These include:

1. Review and update of current periodical holdings in the library and recommendation of new hard back and periodical materials for purchase. A procedures guide for the research staff has been disseminated to help in more effective use of BERD and Johnston Library facilities. A new summer research assistant has been given training in locating special library materials.

2. Handling information requests for research staff, This includes locating materials and research sources on campus as well as making contacts with government and state agencies. Mail inquiries for information are also handled by the resource specialist.
3. Editing the BERD's EYEVIEW newsletter, Initiating contact with African research institutes (30 in all) to begin information exchange, Assisting in other editing of reports monographs for the Bureau,
4. Research activities in addition to assisting the Director and Assistant Director on special projects have focused on two areas:

- A. Voluntary agency activity in development

A panel for the 1978 International Studies Association meeting in Washington, D. C. has been organized on this topic. There will be four participants in addition to Ms. Tuthill. A future study on the extent of U.S. voluntary involvement in sub-Saharan Africa is in the planning stages.

- B. Women's Role in Development

A proposal for a joint background assessment project in a selected African country is being prepared with Dr. Acquah. This will be submitted to AID in July, 1977.

SUMMARY OF ACTIVITIES FOR THE REPORTING PERIOD (FY 1977)

CHARLES D. WHYTE

(ASSISTANT DIRECTOR)

Dr. Whyte has been the Assistant Director of BERD and Professor of Economics since July 1, 1974. His background and expertise have been in the areas of Production Economics, Marketing, Quantative Analysis, and International Economic Development. His responsibilities in BERD fall into three categories; administrative; research; and teaching.

As Assistant Director, Dr. Whyte is responsible for supervising and coordinating the research activities of BERD; and assist in administering the overall activities of BERD. The activities in this reporting period include: (a) research; (b) education and training; (c) linkages and network; (d) administrative; and (e) consultative and advisory services.

Research

The research activities of BERD, under both its domestic and international programs are planned, coordinated and supervised by Dr. Whyte; but, in addition, Dr. Whyte, himself, is engaged in the conduct of research. The research projects of BERD in this reporting period are as follows:

1. An Overview of the Economic and Social Activities in South Central Virginia

- (a) "Agricultural Resources in South Central Virginia" (in progress)
(Dr. Moak)
- (b) "Natural Resources and Government in South Central Virginia" (in progress)
(Dr. Acquah)
- (c) "Manufacturing and Service Activities in South Central Virginia" (completed)*
(Dr. Moak)

2. Credit Programs and Policy with Respect to Small Farmers

- (a) "An Analysis of Commercial Bank Credit to Farmers" (completed)**
Paper presented at the Atlantic Economic Association Meetings,
Washington, D.C., Oct. 14-16, 1976
(Dr. Whyte)
- (b) "An Evaluation Institutional Credit and its Role in Agricultural Production in Ghana"¹ (completed)*
(Drs. Acquah, Whyte; and Mr. Gyekye)

3. Manpower and Resources

- (a) "An Assessment of Human Resources in South Central Virginia" (completed)*
(Dr. Acquah)
- (b) "A Comparative Socio-Economic Profile of South Central Virginia: Women Heads of Household" (completed)*
(Dr. Lesnett)
- (c) "A Targeted Area Information System for Facilitating Program Development, Educator Guidance, and Client Career Selection: Supply and Demand" (in progress)
(Dr. Chipley)
- (d) "Occupational Mobility of Rural Labor" (in progress)
(Dr. Acquah)
- (e) "Labor Turn-over in Small Industries in South Central Virginia" (in progress)
(Dr. Acquah and Mr. Gyekye)
- (f) "Sociological and Economic Variables Affecting the Number of Hours Worked and the Earnings of the Heads of Household in South Central Virginia" (in progress)
(Dr. Lesnett)

4. Marketing

- (a) "Marketing Organization and Activities by County in South Central Virginia" (in progress)
(Dr. Moak)

*Being prepared for BERD monograph publication

**BERD working paper

¹Masters Thesis completed by Mr. Gyekye

- (b) "The Political Economy of Food Marketing in Ghana" (in progress)
(Mr. Moore)
- (c) "The Small Farmer and Agricultural Marketing in South Central Virginia" (in progress)
(Mr. Moore)
- (d) "Transportation Problems and Marketing of Food Crops for Small Farmers in Ghana: A Case Study of the Atebubu District" (in progress)
(Mr. Harmon)

5. Management and Production

- (a) "Value of Farm-wives Time in Agricultural Production: A Case Study of South Central Virginia" (in progress)
(Dr. Acquah and Mr. Gyekye)
- (b) "Enterprise Combinations and Capital Requirements in Northern Ghanaian Agriculture: Case Study of the Kumbungu Area" (in progress)
(Dr. Joshua)
- (c) "Socio-Economic Aspects of Agricultural Implements for use in Rice Production and Processing in Ghana" (in progress)
(Dr. Joshua)
- (d) "Farm Organization and Input Utilization: A Case Study of Rice Production in the Northern and Upper Regions of Ghana" (in progress)
(Mr. Ahene)
- (e) "Livestock Production and Marketing in South Central Virginia: Opportunities for Small Farms Units" - A proposal submitted to CSRS² (no action)
(Dr. Whyte)
- (f) "Catalogue of Services for Small Farm and Non-Farm Businesses" (completed)***
(Dr. Whyte, Editor)

²A research proposal submitted to CSRS at Virginia State College, May, 1976 - on which no action to date has been taken by CSRS.

***Published monograph

6. Other, Including Scholarly Papers

- (a) "Proceedings and Papers of the Regional and International Economic Development Planning Conference" (completed)***
(Dr. Whyte, Editor)
- (b) "New Directions for Blacks in the Labor Market" - paper presented at the American Economic Association Meetings, Atlantic City, N.J. Sept. 16-18, 1976 (completed)**
(Dr. Whyte)
- (c) "Agriculture in Black Economic Development: A Prospective Look at the Third Century" - paper presented at the Southern Regional Science Association Meetings, Birmingham, Alabama April 13-15, 1977 (completed)**
(Dr. Whyte)
- (d) "Communications and Small Farm Programs Workshop" - Workshop discussion leader at The Southern Regional Development Center Functional Network on Small Farms, Gainesville, Florida, April 18-19, 1977 (completed)
(Dr. Whyte)

In addition to the above, Dr. Whyte is the author of the VSC's US-AID 211(d) Grant Extension Proposal which was funded in February, 1977; and the work plan to that proposal. Dr. Whyte has made scholarly contributions to every issue of the BERD's EYEVIEW quarterly publication in this reporting period. He has also served as a member of the US-AID Advisory Committee on Agricultural and Rural Sector Planning, AID Washington, D. C.

Dr. Whyte's research involvement also includes: review of staff research proposals; review of staff research documents for publication; and supervision of graduate student research assistants' research projects.

Dr. Whyte's future (immediate) research activities include:

- (a) A book on Regional and International Development to be co-authored with Dr. H. J. Battle of BERD, and published by Iowa State University Press.

- (b) A paper in a symposium on "Small Farm Oriented Agricultural Policy" at the American Agricultural Economic Association Meetings in San Diego, California, July 31, 1977

Education and Training

The activities of BERD extend beyond research to embrace a program of education and training for staff members as well as graduate research assistants in BERD and other student and faculty members at VSC. At the direction of Dr. Whyte, two seminar series were held during this reporting period. One was a series of working seminars, chaired by Dr. Emmanuel Acquah, designed to establish a dialogue and stimulate awareness of BERD research endeavors among the research staff and graduate students affiliated with BERD. The series also served as a forum for meaningful and constructive discussions on the research projects and activities of BERD. The other seminar series was chaired by Mr. Franklin Moore; and was designed to stimulate an awareness of the problems of development in Sub-Sahara Africa. The title of this series was: "The Coming of Age of Africa."

The program of education and training as directed by Dr. Whyte also includes: short informal courses and sessions for graduate students and graduate student research assistants in research methodology; field trips to various state and national government agencies, international institutions, and colleges and universities; participation in scholarly conferences and meetings; and field training for research staff members collaborating with BERD.

As Professor of Economics, Dr. Whyte taught two graduate courses in the Department of Economics during the reporting period. They were:

- 1, Economics of Underdevelopment, Ec. 451
- and
- 2, International Economics, Ec. 455

In addition he served on two committees for students receiving their Master's degree; and as research project advisor to four Master's degree students. He also served as advisor to students in Economics and BERD's AID scholarship students.

Linkages and Networks

The VSC/UST bilateral linkage program under the VSC's AID 211(d) Grant Program is supervised and coordinated by Dr. Whyte. During the reporting period, Dr. Whyte visited the University of Science and Technology (UST) for consultation with members of the Link Management Board (BERD's counterpart), VSC's staff assigned to Ghana, and officials of the University. Among his accomplishments were: the establishment of a more effective Management Working Group for carrying out the activities under the linkage program; and the development of a plan for an extended program to coincide with the US-AID grant extension to VSC. The plan includes: a program for extending ongoing joint-research activities, and developing proposals for new research projects; and a program for continuing the support of the exchange of students, staff and research findings between the two institutions. Dr. Whyte also initiated discussions with officials of the Government of Liberia for establishing a linkage program similar to the one in Ghana. A linkage program is under consideration.

With the assistance of a Research Associate (Ms. Tuthill) employed by BERD in March of this year, Dr. Whyte has initiated a program to establish informal linkages and networks with U.S. institutions and international organizations designed: to increase VSC's capacity to respond to AID and LDCs requests for advisory and consultative services; and to increase the information and data base at VSC for utilization by LDCs, AID and other institutions involved in rural development work.

Dr. Whyte initiated formal discussions with the office of Development Resources (Dr. John Withers, Chief, AFR/DR, US-AID) to have the capacity developed at VSC under the AID 211(d) program utilized by the African Bureaus. Two documents identifying certain AID projects which the VSC's staff would be ready to assist with have been prepared and submitted to AFR/DR for consideration. Two meetings and individual discussions with several African Bureau officials have taken place during the reporting period. A position paper for a proposed project is being developed by Dr. Acquah and Ms. Tuthill under the direction of Dr. Whyte.

Dr. Whyte is currently serving in a consultative-advisory capacity under the 211(d) utilization mode with TAB/US-AID in its effort to establish new 211(d) programs at 1890 institutions (colleges and universities). His work in this regard serves the interest of VSC in forming linkages and networks, and in upholding the position of VSC in relation to other 1890 institutions.

Dr. Whyte's selection as a member of the "Small Farm Functional Network" of the Southern Rural Development Center¹, and his activities in the Network give BERD an added dimension to its domestic and international programs in rural development. Dr. Whyte has participated in the Network's workshops and will participate as a member of the Network's team in a symposium on "Small Farm Oriented Agricultural Policy" at the American Agricultural Economic Association meetings in San Diego, California July 31 - August 3, 1977.

¹The "Small Farm Functional Network", under the leadership of Dr. Arden Colette of the Institute of Food and Agricultural Sciences, University of Florida, Gainesville, is funded by the Southern Rural Development Center at Mississippi State University.

Administrative

Dr. Whyte's administrative responsibilities cover every aspect of the BERD's activities, and include among others:

1. Planning, coordinating and supervising the research activities in BERD (discussed above).
2. Recruiting new staff (Dr. Emmanuel Acquah and Ms. Janet Tuthill) and research assistants (three new research assistants have been recruited for September 1977; and three more are in the review stage).
3. Preparation of annual and other reports.
4. Planning and conducting seminars, short courses, conferences etc (discussed above).
5. Coordinating and supervising the domestic and international programs in BERD.
6. Coordinating activities for the professional development (training and education) of BERD's graduate student research assistants and staff members.

In addition to the BERD activities, Dr. Whyte serves on several College committees including:

1. Chairman: ad hoc committee to develop Advanced Institutional Development Program (AIDP) proposal, VSC, October, 1976.
2. Chairman: Research Committee of VSCs Self-Study Program for Southern Association of Colleges and School Accreditation February, 1977--.

Consultative and Advisory Services

Dr. Whyte was appointed as a member of the US-AID Advisory Committee on Agricultural and Rural Sector Planning, AID Washington, D. C., March, 1977. He is currently serving in an advisory/consultative capacity with TAB/US-AID under the utilization mode of the VSC's AID 211(a) Grant Program.

SUMMARY OF ACTIVITIES FOR THE REPORTING PERIOD (FY 1977)

REXFORD AHIENE
(Research Assistant)

Mr. Ahene, a native of Ghana is one of the exchange students enrolled in the graduate program at V.S.C. under the VSC/UST Exchange Program. He received his bachelors degree in Land Economy from the University of Science and Technology (U.S.T.) in Ghana, and has been a research assistant at BERD since January 4, 1976. Mr. Ahene undertook, and completed his course work leading to a Master of Arts degree in Economics with a concentration in Economic Development. He is currently working on his thesis research project - "Farm Organization and Input Utilization: A Case Study of Rice Production in the Northern and Upper Regions of Ghana." The expected date of completion is August 31, 1977.

This project will focus on such issues as:

- (a) the nature of the constraints within which the small rice farmer operates;
- (b) the determination of the productivity of the various farm inputs used by peasant farmers in their production operations; and
- (c) the determination of the joint impact of management with the various farm inputs.

Mr. Ahene conducted his research work for this thesis in Ghana where he spent three months collecting the requisite data under the supervision of Dr. Michael Joshua and Mr. Franklin Moore, of the BERD staff.

While in Ghana Mr. Ahene participated in two conferences held at the University of Science and Technology (UST):

- (1) "The International Conference on Rural Development and Regional Planning," jointly sponsored by the UST/VSC Link Management Board, the Pan African Institute. Buea, Cameroon, and the Ministry of Economic Planning, Ghana, from April 11-17, 1977.
- (2) "The Ghana National Animal Science Symposium," held at U.S.T. Kumasi, Ghana, April 4-7, 1977.

Other Activities

During this reporting period, Mr. Ahene assisted Dr. Samuel Moak on two research projects:

- (1) "Agricultural Resources in South Central Virginia," and
- (2) "Manufacturing Services and Activities in South Central Virginia."

He also participated in the BERD Research Seminar Series directed by Dr. Emmanuel Acquah. Mr. Ahene is also the consulting editor for the August issue of the BERD's Eyeview (a quarterly publication).

Upon the termination of his graduate program in Economics at VSC, and his tenure as a research assistant at BERD in August 1977, Mr. Ahene plans to pursue a Ph.D. in Development.

ACTIVITIES FOR THE REPORTING PERIOD (FY 1977)

AGYAPONG B. GYEKYE
(Research Assistant)

As the first student on the VSC/UST student exchange program, Agyapong Gyekye has been a graduate research assistant in the Bureau of Economic Research and Development (BERD) since September 1, 1975. He completed his requirements for the Master of Arts degree in Economics, and graduated in May 1977. His thesis research--"An Evaluation of Institutional Credit and Its Role in Agricultural Production in Ghana" was completed in March 1977 under the supervision of Drs. Whyte and Acquah. The development of a monograph from his thesis with Drs. Whyte and Acquah is in progress.

In addition Mr. Gyekye has been assisting Dr. Acquah in the following BERD research projects:

PROJECTS

- | | |
|---|-------------|
| (1) "An Assessment of Human Resources in South Central Virginia." | Completed |
| (2) "An Assessment of Farm Wives' Power in Agricultural Production in South Central Virginia/Virginia." | In progress |
| (3) "Occupational Mobility and Human Resources Utilization In South Central Virginia/Virginia." | In progress |
| (4) "Natural Resources Overview in South Central Virginia." | In progress |

Other Activities

Mr. Gyekye participated in the BERD research seminar series chaired by Dr. Acquah in the reporting period. He served as a consulting editor for the April 1977 issue of the BERD's Eyeview (a quarterly publication).

Plans for Further Academic Work

Mr. Gyekye has been admitted as a regular student by the Department of Agricultural Economics and Rural Sociology at the Ohio State University to pursue a Ph.D. degree in Economic Development. His Ph.D. program is being financed by the University of Science and Technology, Ghana.

COMPREHENSIVE REVIEW OF VSC-UST RURAL DEVELOPMENT LINKAGE IN GHANA . .

A Rural Development Linkage was formed between Virginia State College and the University of Science and Technology in January, 1975. The purpose of this formal linkage is to provide a frame of reference by which both institutions may develop a capacity to resolve problems that continue to plague small farmers and businesses located in the rural areas of Ghana. The linkage included: (1) exchange of faculty and students between the two institutions, (2) exchange of research findings and (3) sponsorship of jointly held conferences.

To evaluate the extent to which accomplishments have been made in carrying out planned goals in accordance with the terms of agreements, a Comprehensive Review was held April 13 and 14 at the University of Science and Technology, Kumasi, Ghana. The Review encompassed the linkage activities since its formation. Participating in the Review chaired by Dr. Battle, Director of BERD, the organization responsible for VSC's linkage activities in Ghana were: Vice-Chancellor Kwakye, members of Link Management Board, two other members of BERD's staff and two VSC graduate students. Although not present during review sessions, Ghanaian government officials and USAID/Ghana officials were consulted regarding the impact of the linkage.

Issues for discussion were prepared by VSC and sent to UST prior to the Review and requested that responses be prepared for discussion.

SUMMARY OF FINDINGS AND CONCLUSIONS

1. The Link Management Board in its present form was not the most efficient organization to manage rural development activities in the VSC-UST linkage. A Management Working Group was formed but found to have the same weaknesses of the Link Management Board. It was concluded that an organization be formed that would be very similar to that of BERD in structure and line of reporting.

This organization is called the Bureau for Integrated Rural Development (BIRD).

2. Accommodations for exchange staff were discussed at length. It was concluded that no more than one staff member from VSC would be at UST for an extended period of time due to the critical housing situation. Transportation was regarded as another critical matter. It was concluded by the Vice-Chancellor that a vehicle would be purchased for VSC-UST linkage activities (this has been done, reportedly).
3. A review of all research projects supported by VSC was made. The strengths and weaknesses were discussed. It was concluded that the research activities were not moving at the desired pace but the activities performed were in line with our objectives.
4. The teaching responsibilities of VSC's staff while there were discussed. It was made clear that no more than one course would be taught by VSC's staff member during a period or semester. His primary responsibility was to perform and supervise research activities supported by VSC.
5. The selection and sending of UST's students to VSC for advanced work was discussed. It was concluded that students selected by UST and accepted by VSC's Graduate School would, under the supervision of a VSC's staff member in Ghana, develop a thesis outline and gather the primary data needed prior to coming to VSC. This would reduce time and cost of the student educational program.
6. The extent to which VSC and UST had developed staff capabilities as a result of this linkage was discussed, although the linkage was just over two years old, it was quite clear that both institutions had developed or increased their capacity to carry out research in selected areas of rural development.

7. Transfer of knowledge by the ways of teaching, seminars, and holdings of international conferences were discussed. All three had been performed during the linkage and it was concluded that they had served as effective ways to transfer knowledge from one institution to the other. The transfer of knowledge gain from research to the farmer will be undertaken when such information becomes available from completed research projects. The first project is expected to be completed during the next reporting period, after which the most appropriate means of transfer of knowledge will be determined.

It was concluded that the linkage was of vital importance to VSC and UST and it is thereby continued with high expectations of success as VSC attempts to be effective in assisting LDCs in resolving the rural development problems of their small farmers and non-farm business units.