University of Maryland Eastern Shore
International Development
Capability Statement

January 2011
I. BACKGROUND

The University of Maryland Eastern Shore (UMES), established in 1896 is a Historically Black Land-Grant University that nurtures and launches leaders who serve and shape the global economy. Situated in the historic town of Princess Anne, the University of Maryland Eastern Shore (UMES) is a 745 acre campus that is at once academic, international, and Arcadian, making it an inviting and fitting atmosphere for study and young adult growth. It offers students a tranquil retreat to pursue academic goals; yet it is only a two-hour drive from any one of several mid-Atlantic metropolitan areas - Norfolk/Virginia Beach, Washington, D.C., Baltimore, Philadelphia, and Wilmington - providing access to many urban amenities.

UMES is the only research and doctoral degree granting institution of the University System of Maryland on the Eastern Shore of Maryland. Its programs in Construction Management Technology, Aviation Sciences, and Hotel and Restaurant Management are unique to both the state and the region. Every graduate of its Physical Therapy and Dietetics programs has passed the licensure examinations since the programs were first offered.

Behind the campus oval are 500 acres of farmland that complete the multifaceted research institution. Innovative agricultural research, serving both local and global economies, is conducted through the Small Farms Institute and the Swine Research Center, which is the hub of all University of Maryland swine research; a poultry management operation; and crop and animal production programs.

The University of Maryland Eastern Shore serves a student population of about 4,400 students with constituencies that range from first generation college students to an international clientele. Students come from across the state, around the nation, and originate from over 60 different countries. There are 189 full-time faculty members at UMES, and 77% of those with tenure hold a doctorate or terminal degree in their field of specialization. The international elements of the UMES campus are evidenced by the flags of over 60 nations that wave at the campus entrance around the federal, state, and University flagpoles. These flags symbolize the various nationalities of students enrolled at UMES.

SCHOOLS, DEPARTMENTS, CENTERS AND PROGRAMS
AT THE UNIVERSITY OF MARYLAND EASTERN SHORE

There are five (5) Schools within the UMES structure. The School of Agricultural and Natural Sciences houses the Departments of Agriculture, Food and Resource Sciences; Human Ecology; and, Natural Sciences. The School of Arts and the Professions houses the Departments of Criminal Justice; Education; English and Modern Languages; Fine Arts and Social Sciences. The School of Business and Technology houses the Departments of Business, Management and Accounting; Engineering and Aviation Sciences; Hotel and Restaurant Management; Mathematics and Computer Science; and, Technology. The School of Pharmacy and Health Professions, formerly known as the School of Health Professions, houses the Departments of Exercise Science; Pharmacy; Physician Assistant, Physical Therapy and Rehabilitation Services. In concert with the overall mission of the University, each school achieves its specific mission
and goals through its distinctive academic departments. Students select major programs of study leading towards an academic degree from one or more of the eighteen academic departments housed within the four degree-granting Schools.

The School of Graduate Studies coordinates graduate programs for the four degree-granting Schools.

The Division of Academic Affairs also includes the following academic support units: Instructional Technology, Maryland Cooperative Extension, 1890 Extension, 1890 Research, The Honors Program, Poultry Research, Rural Development, Study Abroad, Teacher Education, International Education Academic Support Services, Library Services and Upward Bound--a pre-college educational program for local high school students.

Between 2008 and 2010 (3 years) UMES has raised an average of $19,500.00 each year from grants and contracts.

A. Foreign Students: UMES has experience in training international students for graduate, undergraduate and special short-term programs from several countries.

B. International Focus at UMES: Under the leadership of the current president, the University has renewed and strengthened its commitment to globalization. Dr. Thelma B. Thompson began her service as the 13th president of UMES in July 2002. Born in Jamaica, Dr. Thompson was educated in Jamaica and the U.S. and has a strong personal commitment to international education. In establishing her vision for the University, the President stated, “The international perspective in higher education is critical to the development of leaders who are sensitive to the role we play in shaping the national and international agenda. UMES is committed to providing a wide array of undergraduate and graduate programs in an environment that is responsive to global perspectives in education. The University aims to embed internationalization in some curricula and to extend its concept of international education through continuing education and cooperative ventures with foreign universities and schools.”

The University’s international goals include the following: (a) Internationalization of the curricula, (b) expansion of student study abroad and exchanges, and (c) making international education an integral part of teaching, research, and outreach.
II. THE BEGINNINGS

The UMES international development experience began in June, 1980 with a multi-year award to UMES by the Agency for International Development (AID) for the Title XII University Strengthening Grant Program. This six-year grant (1980-1986) was a faculty and staff preparedness program designed to get UMES ready to undertake technical assistance on behalf of AID in developing countries. The grant was predicated on the interest and potential of UMES faculty for international work. This potential bore fruition eighteen months later in December, 1981, when UMES became a member of a University Consortium, composed of Southern Illinois University-Carbondale (SIUC) and University of Illinois Urbana-Champaign (UIUC), in a contract awarded by AID to UIUC. The contract was for an agricultural research and extension project in Zambia which lasted over nine years.

Four primary activities that emerged during the decade of the 1980’s were:

1. long-term overseas technical assistance;
2. faculty educational exchanges, long-and short-term;
3. short-term overseas technical assistance activities; and,
4. Participant training.

The geographical focus of the decade was principally Sub-Saharan Africa.

A. LONG-TERM OVERSEAS PROJECT TECHNICAL ASSISTANCE

UMES provided the soybean breeder specialists (two faculty members over a six-year period), and the Chief-of-Party for the agricultural research/extension project in Zambia for seven years. During the project’s life, several opportunities arose which facilitated overseas exposure for UMES faculty and staff and the genesis of an internationalizing of the campus. Short-term expertise was provided to the project in library networking; management problem solving; and tailored hands-on workshops and field observations by four Agriculture faculty members. Eight participant trainees obtained their B. S. degrees in Agriculture and one in General Studies from UMES. The project was cited in two USAID Congressional Presentations as a success story in Africa.

The UMES presence in Zambia encouraged two private firms to subcontract with UMES for a Human and Institutional Resources Development project in Zambia between 1986 and 1989. This second project, non-agricultural manpower training, was social and economic science-based.

UMES’ Zambia experience in research, institution building and training, and the partnership with educational institutions all contributed to the design of an unsolicited proposal in agricultural development for West Africa. After several years of refinement, this proposal emerged in August 1986 as “Tropical Root and Tuber Food Crops Research Project” (ROTREP). The initial five year project (1986-1991), with UMES leading other Consortium participants, Alabama A&M and Florida A&M Universities, was the first AID long-term technical assistance project consisting solely of 1890 institutions, and the largest single AID award at the time to an HBCU.
institution. UMES provided the Chief-of-Party and the tissue culture/root crops specialist on the project, and short-term technical assistance to the field by seven agriculture faculty members, staff and administrators.

The year 1986 also brought the University of Illinois into closer union with UMES, as the Joint Memorandum of Understanding partner under the successor AID faculty/staff preparedness program, the Program Support Grant (1986-1992).

B. FACULTY EDUCATIONAL EXCHANGES

A second overseas experiential trend of the 1980’s, besides development assistance, was faculty educational exchanges under the Fulbright-Hays programs. Between 1983 and 1989, nine faculty went abroad, six for an academic year, and three for a summer, primarily to Africa, the Middle East and Asia. The majority of these faculty were from departments in the Schools of Arts and Sciences and Professional Studies.

By the late 1980’s, faculty professional travel and study, independent of development activities, were reaching into Western Europe, Eastern Europe and the former Soviet Union, Taiwan, and the People’s Republic of China. Host governments and the USDA were the major sponsors of these ventures.

Since 1990, six faculty members from departments in the Schools of Arts and Sciences and Professional Studies have participated in educational exchange under the Fulbright-Hayes Programs, for an academic year or summer in Sub-Saharan African countries and Japan.

C. SHORT TERM OVERSEAS TECHNICAL ASSISTANCE

Independent of the long-term project assistance, short-term development activities started occurring by the mid-1980’s. These included six competitive USAID funded HBCU Research Program Grants (1984 – 1994), and administrative consultations for USAID missions in Cameroon (1986), and Burkina Faso (1988). These activities strengthened the West African geographical connection.

Between 1989 and 1992, Agriculture and Human Ecology faculty provided short-term technical assistance to the faculties of Agriculture at three Egyptian Universities (Cairo, Ain Shams and Suez Canal) on four projects funded ($300,000) by USAID under the U.S.–Egyptian Universities Linkages Program. The UMES Library staff conducted workshops for the library staff of three Egyptian Universities. These initiatives with Egyptian Universities expanded with four additional projects under Phase II of the U.S.–Egyptian Universities Linkage Project, and UMES received $800,000 for four projects.

- In 1998, UMES received one of the first ten new USAID competitive grants under its Higher Education Partnership Program, which is administered by ALO.

- Over the past two decades, UMES has provided its staff to serve as short-term consultants on USAID/USDA funded research, development, training and evaluation

D. PARTICIPANT TRAINING

The fourth primary activity of the 1980’s was the building of a capability in participant training. From the early to mid-1980’s, there were only a handful of short-term and long term trainees at UMES. By the end of the decade, the number of trainees was increasing as well as the range of country of origin (besides Sub-Saharan Africa, The Middle East, Asia, Eastern Europe and the Caribbean). The scope of activities included intensive subject matter programs, observation/study tours and field trips for USDA-Washington-based short courses. Between 1980 and 1993, there were over 87 sponsored short-term trainees at UMES, and over 115 scientists, technicians and administrative support staff participated in short-term workshops conducted by UMES at project field sites in Zambia and Cameroon.

A similar evolutionary pattern paralleled the experience with the degree program trainees. By 1989, their scope of training expanded to include graduate education, as well as undergraduate education, in fields such as environmental science, computer science, marine science, and hotel and restaurant management. The countries of origin expanded beyond Africa to encompass the regions of the Middle East, Central America, and the Caribbean.

UMES also served as a training sub-contractor for major university consortia (CID/MUCIA/SECID) under the AID funded General Agricultural Training Program.

UMES has the experience in training international students for graduate, undergraduate and special short-term programs from several countries. The following table represents countries from which students are currently attending UMES.
### Distribution of Training Participants at UMES

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<tr>
<th>North America</th>
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<th>Sub-Saharan Africa</th>
<th>Middle East</th>
<th>Asia</th>
<th>South America, Caribbean and Central America</th>
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III. SYNOPSIS OF MAJOR INTERNATIONAL ACTIVITIES

A. LONG-TERM PROJECTS

ZAMBIA


UMES collaborated with University of Illinois at Urbana-Champaign and Southern Illinois University.

- **Source of Funding:** USAID and Government of Zambia
- **Funding Level:** $10,588,856
- **UMES Share:** $1,807,029

Project Goals

The Zambian Agricultural Research and Extension (ZAMARE) Project aimed to help the Government of the Republic of Zambia (GRZ) in its efforts to improve the welfare of small-scale farmers and to increase national food production through the development and adaptation of improved and relevant technologies.

Project Approach

ZAMARE activities were designed to help (1) increase the effectiveness of the extension service to transfer relevant technologies; and (2) strengthen the agricultural research capacity of the Ministry of Agriculture and Water Development (MAWD). Specific research focused on maize, sunflowers, and soybeans.

Project Objectives

MAWD focused its efforts on two types of research teams, of which ZAMARE staff were members – Commodity Research Teams (CRTs), and Adaptive Research Planning Teams (ARPTs).

Major emphasis was placed on developing the capabilities of Commodity Research Teams (CRTs). Twelve CRTs conducted research programs focusing on production constraints of the various agricultural cropping patterns, tillage practices, use of improved agricultural inputs, and harvesting and storage methods.

The Adaptive Research Planning Teams (ARPTs) concentrated on specific geographic regions and worked directly with farmers to identify problems peculiar to their local farming systems. They introduced a “bottom up” approach to setting research priorities in Zambia by providing...
feedback on farmers’ problems to the CRT scientists and by testing new technologies at the farm level.

An important aspect of the ZAMARE project involved the upgrading of professional and technical skills within MAWD through advanced academic and practical training. Long term academic training in U.S. institutions (48 participants), short term training and study tours (82 participants), and in-service training were important components of the ZAMARE Project.

UMES provided the soybean-breeder specialists (two faculty members over a six-year period) and the Chief-of-Party for the agricultural research/extension project in Zambia during the last seven years of the grant. During the project’s life, several opportunities arose which facilitated overseas exposure for UMES faculty and staff and the genesis of campus internationalization. Short-term expertise were provided to the project in library networking, management problem solving, needs assessments and hands-on training workshops by four Agriculture faculty members. Eight participant trainees obtained their B.S. degree in Agriculture and one in General Studies from UMES. The project was cited in two AID Congressional Presentations (1987 and 1989) as a success story in Africa.
CAMEROON

Tropical Roots and Tubers Research Project (ROTREP)

- Source of Funding: USAID and Cameroon Government
- Funding Level: $13.1 million
- Duration: 1986-1994
- Special Features:
  - ROTREP was the first major USAID long-term technical assistance project consisting solely of 1890 institutions.
  - ROTREP represented the largest single USAID award to an HBCU at the time of the award.

- Mode of Implementation: Cooperative agreement with University of Maryland Eastern Shore (as lead institution), with sub-agreements with Alabama A&M and Florida A&M Universities.

Project Goal and Objectives

The goal of ROTREP was to contribute to the improvement of Cameroon farmers’ socio-economic welfare through increased productivity of Root and Tuber Food Crops.

The objectives of ROTREP were to:

1. Develop locally acceptable variety of cocoyam which is resistant to Root Rot Disease in Cameroon.
2. Develop feasible (technical and economical) Seedstock Multiplication System(s) for Yam, Cassava and Cocoyam.
3. Study the nature and magnitude of post harvest losses of root and tuber food crops systems and recommend researchable problems and opportunities for improving the system(s).

Major Accomplishments

Breeding

- An international germplasm collection of cocoyam was collected and preserved in Cameroon.
- It has been confirmed that cocoyam root rot disease is not complex but is caused only by the fungus *Phytophthora myriotylum*.
- Laboratory and field phytopathological screening of the cocoyam germplasm was completed and 12 accessions of white cocoyam tolerant against the cocoyam root rot disease were identified.
- Isolates of the fungus (P. Myriotylum) were successfully collected from different ecological zones and used for screening cocoyams for resistance and tolerance.
- Cameroon cocoyams were characterized through electrophoretic, protein, ash and moisture content analyses.
- Clonal evaluations of potentially tolerant/resistant cocoyam varieties were conducted at three locations to select for tolerant accessions.

**Rapid Seedstock Multiplication System**

- Growth media were successfully developed and tested for Cocoyam, Yam and Cassava.
- Media for rooting were developed for Yam and these have increased the efficiency and multiplication ratio of the yam cultures.
- A medium was developed which is suitable for Cassava shoot-tip regeneration.
- Subculture technology of developed Cassava plantlets was perfected to provide a reliable means of additional rapid multiplication for Cassava.
- Secondary dormant buds on cocoyam rhizome were successfully used as source of explants; this enhanced mass rapid multiplication, since each large rhizome produces between 600 and 800 buds, depending on age.
- Six thousand (6,000) tissue culture derived Cocoyam plants were field tested and found to perform better in general growth and earliness in tuberization.
- Tissue culture derived cassava plants were successfully field tested. The plants showed much robust growth and higher yield than their non-tissue culture relatives.
- Commercial yam, cocoyam and cassava were successfully regenerated through tissue culture techniques.

**Economic Analyses**

The following economic studies were completed:

- Productivity Analysis of Small-Holder Yam Production in the Fako Division.
- An Analysis of the Structure, Conduct and Performance of Yam Marketing Systems in Fako Division of Cameroon.
- Productivity analysis of Root Crop Based Farming Systems in Southwest, Northwest and Western Provinces of Cameroon.
- The Economics of Rapid Seed Multiplication of Cocoyam through Tissue Culture.
- Estimation of Production function for Yams, Cocoyams and Cassava in Cameroon.

**Institutional Development**

- An Ultra Modern Biotechnology Laboratory was constructed at Ekona Research Centre. The construction and furnishing of the equipment and facilities were completed in a record time.
- ROTREPT technical assistance team and their Cameroon counterparts provided on-the-job training to junior level staff in genetics, plant breeding, tissue culture, plant pathology, agricultural economics, and administrative management.
- Several Cameroonians received short term training (technical and administrative), through project funds, in the U.S.A., IITA in Nigeria and Cameroon.
- Seven Cameroonian researchers received M.Sc. (6) and Ph.D. (1) degrees from American universities.
ROTREP served as a training ground for students from Dschang University Centre and other agricultural training colleges in Cameroon.

Eight Cameroonians received individualized training in tissue culture, virus indexing, instrument maintenance and biotechnology for crop improvement.

Fifty-one IRA personnel received hands-on training in the use of micro-computers for research and administration.

**ROTREP Publications**

- Forty-four (44) articles were published in various journals and conference proceedings
- A manual on cocoyam breeding; and
- A brochure on Plant Pathology methods, which serves as reference materials on root crops research, was published

**UMES’ Contribution to ROTREP**

UMES served as the lead institution and provided:

- Chief-of-Party/Agricultural Economist (1986-1992)
- Breeder/Tissue Culture Specialist (1987-1992)
- Project Manager (1986-1994)
- Project Coordinator (1986-1994)

**Comments on ROTREP**

- “ROTREP Technical Assistance Team has done an outstanding job in fostering close and professional relationships with their national counterparts. This has lead to a creation of a critical mass of outstanding Cameroonian researchers, capable of using the state-of-the-art facilities in applied biotechnology in agriculture.”
  
  [Ernest Gibson, Chief of ARD, USAID/Cameroon (2/14/92)]

- “ROTREP has established one of the closest and productive relationships with a government that I have seen in all my years with USAID.”
  
  [Mr. Jay P. Johnson, Mission Director, USAID/Cameroon (5/6/87)]

- “The project is truly a three-way partnership between GRC, the University consortium of UMES/AAMU/FAMU and USAID.”
  
  [His Excellency Marc Edelman, U.S. Ambassador to Cameroon (7/29/88)]

- “The implementation plan for the project has met our most optimistic estimates. Procurement, which is quite complicated, has been completed in record time – the best by far of any of our project.”
  
  [Mr. Jay P. Johnson, Mission Director, USAID/Cameroon (5/6/89)]
“The outstanding performance of the scientists and the administrators of the three Historical Black Universities in implementing ROTREP clearly show that if given the resources, these unique 1890 Land-Grand Universities can make major and significant contributions to the agricultural and economic development of our nation. We wish we knew of them earlier, and hope the relationships and our experience will continue and spread to other African nations.”

[Dr. Jacob Ayuk-Takem, Minister of Scientific and Technical Research (3/15/92)]

The First Commercially Produced Tissue Cultured Cassava at Ekona, Cameroon
EGYPT

The U.S. – Egyptian Universities Linkages Project

The University of Maryland Eastern Shore participated in the USAID funded Egyptian Universities Program starting in 1990. During Phase I of the program, UMES signed four Research Grant Agreements with the Egyptian Supreme Council of Universities in Cairo, Egypt totaling $300,000. UMES faculty and staff provided technical assistance on the following projects.

- **Cairo University, Cairo, Egypt**
  - Improving Oilseed Production in Newly Reclaimed Land in Egypt for Small-Scale Farmers (1990-1992)
- **Ain Shams University, Cairo, Egypt**
  - Use of Non-Classical Ingredients in Ration Formulas for Farm Animals (1990-1992)
- **Suez Canal University**
  - The Role of Rural and Bidwen Women in Development (July, 1991-June, 1992)
  - Improving the Production and Utilization of Oilseed Crops in the Sinai (June, 1991-June, 1992)
  - All projects in Phase I were successfully completed.
  - A library training program was conducted using funds from each project.


UMES further strengthened its linkage relationship with both Ain Shams and Cairo University during the Phase II of the Universities Linkage Program. UMES also collaborated with the National Agricultural Research Project to develop long-term projects. In accordance with procedure for awarding grants during Phase II, UMES scientists, in collaboration with their counterparts in Egypt, developed and received funding of $800,000 for the following projects:

- Development And Transfer Of Technology For Processing New Food Products From Grains in Egypt
- New Integrated Technology For Increasing Productivity Of Oilseed Crops Under Newly Reclaimed Lands in Egypt
- Maximizing The Utilization Of Feed Ingredients In Animal Production Through The Use Of Computerized Least Cost Formulations
- Pollution Of River Nile Near Metropolitan Areas
- Introducing And Improving New Oilseed Crops In The Cropping Systems Of Newly Reclaimed Land In Egypt
UMES/BORDER TECHNIKON TERTIARY EDUCATION LINKAGES PROJECT (TELP)

The TELP Linkage Project between the University of Maryland Eastern Shore (UMES) and Border Technikon (BT) was designed to assist BT in the development of its administrative capacity. Over the life of the project (1999-2003), UMES assisted BT to achieve the following outcomes:

- Institutionalization of its Strategic Planning Process and development of its immediate term (2000-2004) Strategic Plan;
- Continuous performance improvement and promotion of Quality Assurance of its Academic Administrative functions;
- Coordination of financial and facilities (fiscal and spatial) planning in developing its institutional strategic plan;
- Development of policies on Human Resources, Staff Development, Leave and Communication Channels;
- Formalization of staff recruitment and retention strategies; and,
- Formalization of student recruitment, enrollment and retention strategies.

PROJECT GOAL AND OBJECTIVES

The goal of the project was to assist BT in building its institutional capacity in management and administrative functions.

The major objectives for the project were to:

a. Enhance the Institutional Planning Capacity of BT;
b. Enhance the administrative capacity of BT to develop policies for work and service conditions, which are consistent with South African labor laws;
c. Develop strategies for staff recruitment, and retention at BT;
d. Develop strategies for student recruitment, enrollment and retention at BT;
e. Enhance the capacity of BT to promote Quality Assurance and performance improvements in its academic and administrative functions; and,
f. Assist in identifying and nurturing the development of Centers of Excellence at BT.
B. PROFESSIONAL EXCHANGES AND STUDY ABROAD

The University of Maryland Eastern Shore (UMES) encourages its faculty and staff to participate in Professional Scholars Exchanges abroad, and it also hosts Professional Scholars. Our experiences to date include:

**UMES Fulbright-Hays Scholars Abroad**

- 1983-84: **Germany** and **Egypt** (one each from Departments of English and Languages, and Education)
- 1984-84: **Singapore** and **Algeria** (one each from Departments of Social Sciences, and English and Languages)
- 1985-86: **Jordan** (Department of Human Ecology)
- 1988-89: **Hong Kong** (Department of Social Sciences)
- 1992-93: **Namibia** (Department of Natural Sciences)
- 1993: **Japan** (Department of Social Sciences)

**UMES Faculty Participation in the Fulbright-Hays Group Study Abroad Program**

- 1987: Two faculty members (in Agriculture and English and Languages) to Sierra Leone and Togo
- 1989: One faculty member (Art) to Kenya and Tanzania
- 1993: Two faculty members (from Business and Economics and Education) to Senegal and Ghana
- 1993: One faculty member (Political Science) and a team coordinator to Namibia

**Other Professional Exchanges**

- 1985-86: UMES faculty member from the English and Languages Department provided English language instruction at Hefei Polytechnic University in Beijing, China. Sponsored by the People’s Republic of China.
- 1981: UMES had two faculty/staff participants (from its Department of Agriculture) in a Group Projects/Abroad Program to the Eastern Caribbean, to explore Caribbean-American Linkage Program. Sponsored by USIA.
- Four UMES faculty members went on USDA supported research assignments to Western Europe (Sweden, Denmark, Finland, and The Netherlands), and to The People’s Republic of China and Taiwan.
- 1990: One faculty member conducted a special study commissioned by the Republic of Transkei, South Africa.
- 1983-84: A UMES historian lectured and studied at Cambridge University, England,
- 1989: UMES Professor of Computer Science visited the former **Soviet Union** (and Eastern Europe) on invitation of the Soviet Academy of Sciences.
**Other Visiting Scholars to UMES**

Since 1980, UMES has had visiting scholar residents on campus for an average of two to four semesters, from the Near East, Africa and Asia. Among them were:

- 1982-84: Three human nutritionists/biochemists from Cairo University (Egypt);
- 1981-82 and 1985-86: A plant pathologist from the University of Peradeniya, (Sri Lanka);
- 1990-91: A crop protection specialist from the University of Zambia;
- 1993: An agronomist from Cairo University;
- 1985-86: A mental hygienist from Ain Shams University (Egypt), a Fulbright Scholar-in-Residence; and
- 1989-90: An African oral literature specialist from the University of Nigeria.

Between 1986 and 2000, there were 510 recorded international professional visitors to UMES.

**C. LINKAGES**

UMES strives to develop Memoranda of Understanding (MOU) or Linkage Agreements (LA) with international organizations to facilitate relationships for continuing international development activities. The purpose of such agreements is to provide the mechanism for other collaborative activities beyond the life of a given project. Listed below are linkage agreements that have been developed with international and domestic institutions to facilitate international research and development.

1. Memorandum of Understanding (MOU) with the United States Department of Agriculture/Foreign Agricultural Services/International Corporation Division (USDA/FAS/ICD) for collaborative international development and scientific cooperation (1980).

2. MOU with the University of Illinois at Urbana-Campaign for international agricultural development (1981).

3. MOU with Florida A&M (FAMU) and Alabama A&M (AAMU) Universities to implement the ROTRE Project in Cameroon (1986).

4. MOU with the University of Zambia for collaborative research and an educational exchange in 1988 (1986).


6. MOU with the International Institute of Tropical Agriculture, Ibadan, Nigeria, to provide collaboration in agriculture research, training and related activities in tropical root and tuber crops (1988).
7. Collaboration with the Center for Environmental and Estuarine Studies of the University of Maryland System to implement linkage agreement with the University of Namibia. The linkage agreement is for exchange, research and training, with emphasis in the agricultural, environmental and marine sciences (1990).

8. Linkage agreement with Ain Shams University, Egypt for educational training and research activities (1992).

9. Linkage agreement with Cairo University, Egypt for educational training and research activities (1992).

10. MOU with Hefei Polytechnic University, of the Peoples Republic of China for scientific and technical exchange (1993).

11. Linkage agreement with Egerton University, Kenya for educational training, research, and economic development (1995).

12. Linkage agreement with Africa University, Zimbabwe for educational training, research and agribusiness development (1995).

13. Linkage Agreement with Kwame Nkrumah University of Science and Technology, Ghana for collaborative scientific research, teaching and outreach to promote development in Ghana, promotion of cross-cultural knowledge and strengthening of the international experience at UMES (2003).


15. Linkage Agreement with University of Cape Coast, Ghana for collaborative scientific research, teaching and outreach to promote development in Ghana, promotion of cross-cultural knowledge and strengthening of the international experience at UMES (2003).


17. Linkage agreement with St. Elizabeth Homecoming Foundation, St. Elizabeth Parish, Jamaica for collaborative scientific research, teaching and outreach to promote development in Jamaica, promotion of cross-cultural knowledge and strengthening of the international experience at UMES (2003).

18. MOU with Golden Beach Hotels (Ghana) Limited to combine efforts of both institutions and others with similar interests, to stimulate technical cooperation in establishing a functional Hospitality and Tourism Institute (HTI) that provides hands on professional training and certification for management, supervisory and basic level personnel in Ghana's hotel, restaurant and travel industry (2004).
19. **Linkage Agreement with Northern Caribbean University, Jamaica for collaborative scientific research, teaching and outreach to promote development in Jamaica, promotion of cross-cultural knowledge and strengthening of the international experience at UMES (2003).**

20. **Linkage Agreement with The University of West Indies Mona Campus, Jamaica for scientific cooperation and to strengthen research, teaching and outreach, to promote development in Jamaica; broaden the international experience at UMES; and promote cross cultural knowledge and understanding amongst students, faculty and staff of both institutions (2004).**

21. **Linkage Agreement with the Central Region Development Commission, Ghana stimulate cooperation and strengthen training and technical assistance to promote development in the Central Region of Ghana, broaden the international experience at UMES, and promote cross-cultural knowledge and understanding amongst faculty and students of UMES and personnel of CEDECOM (2004).**

22. **Linkage Agreement with University of Johannesburg, South Africa to combine efforts of the two institutions to stimulate scientific cooperation and strengthen research, teaching, and outreach to promote development in South Africa, broaden the international experience at UMES, and promote cross-cultural knowledge and understanding amongst students, faculty and staff of both institutions.**

23. **Linkage Agreement with Walter Sisulu University for Technology And Science, Eastern Cape, South Africa for scientific cooperation and to strengthen research, teaching and outreach; broaden the international experience at UMES; and promote cross cultural knowledge and understanding amongst students, faculty and staff of both institutions (2007).**

24. **MOU with Estonian Aviation Academy, Estonia for scientific cooperation and to strengthen research, teaching and outreach to promote development in Estonia; broaden the international experience at UMES; and promote cross cultural knowledge and understanding amongst students, faculty and staff of both institutions (2009).**

25. **MOU with Department of the Navy Surface Combat Systems Center Wallops Island, VA to leverage the strengths and talents of UMES students for potential placement in the SCSC Navy civilian workforce, or as interns; and to collaborate on program events at UMES with SCSC leadership for enhancement of civilian workforce diversity at SCSC (2009).**

26. **MOU with Delta State Oil Producing Areas Development Commission (DESOPADEC), Nigeria to combine efforts of DESOPADEC, and UMES to stimulate and strengthen training and human capacity development to promote development in Delta State of Nigeria (2009).**
27. Articulation Agreement with DESOPADEC to create a detailed plan to initiate the actions necessary to fulfill the purpose and objectives of the MOU (2009).

28. MOU with Universiti Kuala Lumpur, Malaysia to stimulate scientific cooperation and strengthen research, teaching and outreach, to promote development in Malaysia, broaden the international experience at UMES, and promote cross-cultural knowledge and understanding amongst students, faculty and staff of both institutions (2009).

29. United States Department of Agriculture/Foreign Agricultural Services/International Cooperative Division (USDA/FAS/ICD) has collaborated with UMES to implement several different projects to provide technical assistance to USAID Africa Bureau (ongoing).

IV. COLLABORATIVE RELATIONSHIP WITH UNITED STATES DEPARTMENT OF AGRICULTURE/UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

Through several Cooperative Agreements between UMES and USDA/FAS/ICD, UMES has and continues to provide technical assistance to USAID/Africa Bureau through the following projects.

The current and past activities include:

Current

   The Senior Entomologist/Ecotoxicologist supports USAID Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA), U.S. Office for Foreign Disaster Assistance (OFDA), Disaster Response & Mitigation (DRM) Division, Technical Assistance Team (TAG) to: (1) develop safe and effective means of controlling emergency trans-boundary outbreak pests (ETOPS); (2) support entities and regional organizations that monitor survey, report and manage outbreaks; (3) provide short-term training courses in prevention, management and control; (4) provide advice on obsolete pesticide disposal and human safety and environmental protection; and (5) provide technical guidance to USAID field missions, host-countries and partners in ETOPS and related areas.

   The program provides Long-Term Technical Assistance to USAID/Bureau for Africa (AFR) and USAID/Washington on economic growth, agriculture, and natural resource management issues, including global climate change in Sudan. This program also provides Technical Support to USAID/AFR/Office of Sustainable Development (SD)/Economic Growth, Environment and Agriculture (EGEA) Missions working on
Food Security, Climate Change, Development and Outreach, Economic Growth, Agriculture, and Education.


Three (3) Technical Advisors provide long-term Technical Assistance for USAID Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA), U.S. Office for Foreign Disaster Assistance (OFDA), Disaster Response & Mitigation (DRM) Division, Technical Assistance Team (TAG) Technical Advisors are responsible for preparation of an integrated disaster response emphasizing prevention, preparedness, and mitigation of effects of disaster upon economic assets in such areas as transportation, health facilities, urban infrastructure and regional economic planning capacity; protection of, and resolution of issues, involving internally displaced persons; and resolution of issues involving Food Security.


The program provides Short-term Technical Assistance to USAID/AFR and USAID/Asia (A)/Office of Sustainable Development (SD)/Economic Growth, Environment and Agriculture (EGEA) in developing an internationally recognized, legal framework for national systems of food safety to achieve more effective government infrastructure for monitoring and mitigating plant and animal diseases and ensuring a safe food supply.

Past


The Country Director for USDA/Animal and Plant Health Inspection Service (APHIS) served as the authority on all issues on related HPAI projects in Indonesia. The Country Director led an Indonesia team in planning, developing, establishing, implementing and managing projects; and liaised with US-based experts and international organizations to coordinate capacity building in areas such as disease surveillance, enhanced bio-security, control of infected birds and products, and changes to industry to reduce risk.
   UMES specialists provided services to assess the governmental, technological and other constraints that inhibit information sharing in the agriculture/natural resource management sector in Southern Africa and made recommendations on how to improve information sharing systems in the Southern African Region.

   UMES provided Technical Assistance Support for analysis related to food security activities and issues in the Greater Horn Region. This particular activity was related to the provision of assistance to the GHAI Long-Term Food Security and Transitions Working Groups and to REDSO/ESA in planning and carrying out the GHAI Mission Directors Conference.

   UMES provided technical assistance to USAID to develop concept papers for indigenization of Agribusiness in sub-Saharan Africa. A UMES faculty member served as a consultant to develop a model for stimulating Indigenous Agribusiness Development in Zimbabwe and Namibia. UMES collaborated with Africare in developing the concept paper for Namibia. Another UMES Professor, with the Department of Business and Economics, served as a Consultant on a Small Business Development Workshop in Malawi (February/March 1997).

   UMES provided Administrative Support to the Global Bureau's Office of Environmental and Natural Resources to develop and maintain database management systems. A long-term Administrative Assistant was assigned to USAID, Washington, DC.

   UMES provided technical and professional support in the design and implementation of programs to the Office of Development Planning in the Africa Bureau of USAID to assist with the formation and implementation of African Bureau's policy and guidance on local participation in Agricultural and Natural Resource Management through PVOs/NGOs. UMES assigned a long-term Visiting Professor to USAID in Washington, DC.

   UMES provided technical assistance to increase human resource capacity of Kenya Agricultural Research Institute (KARI) and Egerton University in horticultural marketing and policy analysis research to improve the welfare of the rural community. The short-term as well as the long-term objectives to this activity were complimentary to USAID's plan to strengthen socio-economic research trust in Kenya.

UMES provided short-term assistance to USAID to facilitate the development of a consensus within USAID regarding acceptable strategies for promoting civil society and democratic institutions in rural areas of Africa; contribute to the development of a Project Identification Document (PID) and Project Paper (PP) for the TTD; and prepare issue papers to address local government and local organization issues as required by the PID and PD review processes.


UMES provided technical assistance in the planning, management, evaluation and monitoring of agricultural research activities under the PARTS Project; and advising the Africa Bureau (both A.I.D./Washington and USAID Missions) on technology development and transfer issues of strategic importance to the region. UMES had two long-term Visiting Professors assigned to USAID/PSGE in Washington, D.C.


UMES provided one long-term advisor and five short-term advisors to help develop the concept paper for ISA. The concept paper outlined plans for promoting regional economic cooperation and defined an elaboration of a strategy for US Government’s initiative for the Southern African Region. The strategies developed in the concept paper led to the creation of a new USAID Southern Africa Regional Office in Botswana.

**V. STUDIES, REPORTS, AND EVALUATIONS CONDUCTED FOR USAID**


• **Acquah, Emmanuel T.,** et. al. “Ghana’s Agricultural Services Sector Investment Program (AGSSIP), and Its Relationship with USAID/Ghana’s Strategic Objective 1 and Title II Program”. Technical Report submitted to USAID/PSGE and USAID/Ghana. January 1999.


### Table 1: Faculty/Staff Expertise and Language Competence

<table>
<thead>
<tr>
<th>NAME</th>
<th>TECHNICAL ASSISTANCE EXPERIENCE</th>
<th>COUNTRY OF EXPERIENCE</th>
<th>LANGUAGE COMPETENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emmanuel Acquah, Ph.D.</td>
<td>Production Economics; Economics of Education; Agribusiness Management; Project Management (Chief-of-Party); Project Identification, Design, and Implementation; Institutional Development; Economic Development; Impact Analysis; Needs Assessment; Performance Monitoring and Evaluation Planning; Agricultural Policy; Technology Development and Transfer; Production Support and Financial Service; International Trade and Marketing; Small and Micro-Enterprise Development; Rural Development</td>
<td>Liberia, Kenya, Sudan, Ghana, St. Lucia, Mali, Burkina Faso, Cote d’Ivore, South Africa, Senegal, Uganda, Jamaica, Egypt, Zambia, Zimbabwe, and Senegal</td>
<td>English, Akan, Swahili (limited), French (limited)</td>
</tr>
<tr>
<td>Agricultural Economics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sarah Acquah, Ph.D.</td>
<td>Project Management; Procurement Management; Extension Education and Evaluation; Curriculum Development</td>
<td>Ghana, Kenya, Cameroon, and South Africa</td>
<td>English, Akan</td>
</tr>
<tr>
<td>Agricultural Extension Ed.</td>
<td></td>
<td></td>
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<tr>
<td>Economics</td>
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</tr>
<tr>
<td>Kathryn Barrett-Gaines, Ph.D.</td>
<td>Education, teaching, training, writing, organizing, public speaking, entertaining</td>
<td>United States, Uganda, Rwanda, Kenya, Ethiopia, Egypt, Britain, Italy, Spain, France, Russia, Georgian Republic, Azerbaijan, Finland, Denmark, Israel</td>
<td>English, Luganda, Swahili, French</td>
</tr>
<tr>
<td>History</td>
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<tr>
<td>NAME</td>
<td>TECHNICAL ASSISTANCE EXPERIENCE</td>
<td>COUNTRY OF EXPERIENCE</td>
<td>LANGUAGE COMPETENCE</td>
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</tbody>
</table>
| J. Bryan Burrows-McElwain, M.S. Aeronautical Science | Aviation/Aerospace Safety Systems; Risk Assessments/Hazard Analysis, Gap Analysis, FAA Safety Seminars, Flight instruction (Pvt./Instr./Commercial/CFI-I, Land & Sea), Organizational Leadership Analysis, FlexSim 3D modeling, Safety Management Systems (SMS), Critical Incident Stress Management: Group Crisis Intervention. | Travel experience in the following countries where I have organizational teaching contacts: Costa Rica, Dominican Republic, Estonia, Israel, Japan | English, German (limited*)  
* Need a little refresher on vocabulary but I can read German very well. I still remember the basic sentence structure, rules, etc. |
<p>| Maurice Clarke, MSc., DVM Assistant Professor | Project Management Disease prevention and management, Curriculum development.                     | Guyana                                                                               | English                                  |
| Ibiba Dabipi, Ph.D. Engineering            | Electrical Engineering (Communications); Transportation Engineering                            | Nigeria, and Jamaica                                                                  | English                                  |
| Robert Dadson, Ph.D. Plant Breeding        | Crop Breeding; Agronomy; Biotechnology; Project Management (Chief-of-Party)                    | Ghana, Togo, Senegal, Nigeria, Cameroon, Zambia and Egypt                             | French, Fanti, Asanti, English           |
| Theresa Dadson, M.S. Library Science       | Library Cataloging and Acquisition                                                             | Ghana and Canada                                                                      | English, Akan                            |</p>
<table>
<thead>
<tr>
<th>NAME</th>
<th>TECHNICAL ASSISTANCE EXPERIENCE</th>
<th>COUNTRY OF EXPERIENCE</th>
<th>LANGUAGE COMPETENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ejigou Demissie, Ph.D. Agricultural Economics</td>
<td>Agribusiness Management; Economic Development; Agricultural Policy; Agricultural Finance International Trade, Agricultural Marketing; Rural and Regional Development, Outreach Training, Sustainable Agriculture Education</td>
<td>Jamaica, Barbados, Costa-Rica, Dominican Republic, Togo, Sierra-Leone, South Africa, Haiti, Trinidad, Benin, Columbia, Mexico,</td>
<td>English, Amharic, Spanish (limited),</td>
</tr>
</tbody>
</table>
| Enrique Nelson Escobar, Ph.D. | • Small Ruminant Production  
• Project Management  
• Project Identification, Design, and Implementation  
• Institutional Development;  
• Monitoring and Evaluation  
• Technology Development and Transfer;  
• Rural Development  
• Goat dairy products evaluation  
• Curriculum development  
• Research projects design and evaluation  
• Small farm sustainability  
• Dairy goat nutrition and production management  
• Sheep health management | USA, EL Salvador, Guatemala, Haiti, Dominican Republic, Mexico, Costa Rica | Fluently: English and Spanish  
Limited: French and Portuguese |
<p>| Tao Gong, Ph.D. Agricultural Economics | Economics (General); Agricultural Economics; Economics of Education; Economic Development; Impact Analysis and Evaluation; Needs Assessment; Agricultural Policy; Research Methodology | China PR | English, Mandarin |
| Handwerker, Thomas Ph.D. Plant Physiology | Hydroponics; Greenhouse Production; Alternative Crops; Farming Systems; Aquaculture | Netherlands, Spain and Bangladesh | English |</p>
<table>
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<th>LANGUAGE COMPETENCE</th>
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</thead>
<tbody>
<tr>
<td>Jeannine Harter-Dennis, Ph.D. Animal Nutrition</td>
<td>Animal Nutrition; Poultry Production</td>
<td>Egypt and Western Europe</td>
<td>English</td>
</tr>
<tr>
<td>Ronnie Holden, Ed.D. Administration</td>
<td>Procurement Management; Compliance Audit</td>
<td>Cameroon and South Africa</td>
<td>English</td>
</tr>
<tr>
<td>Ali Ishaque, Ph.D. Environmental Science</td>
<td>Chemical Pollution and Risk Assessment; Environmental Science</td>
<td>Ghana and Belgium</td>
<td>English, Akan</td>
</tr>
<tr>
<td>James Junker, Ph.D. Pathology</td>
<td>Biological Sciences and Allied Health Education: Cell Biology, Pathophysiology, Comparative Animal Physiology</td>
<td>Nigeria, Brazil</td>
<td>English, German (limited)</td>
</tr>
<tr>
<td>Daniel S. Kuennen MS Community Development &amp; MA Public Administration</td>
<td>Economic Development; Project Planning, Development and Management; Institutional Development; Evaluation Planning; Policy Development; Technology Development and Transfer; Small and Micro-Enterprise Development; Micro Lending and Business Lending; Rural Development; Tourism Development; Cooperative Development</td>
<td>Jamaica, Costa Rica Dominican Republic, Egypt, Brasil, China, México, Panamá, Trinidad, Tobago, Southern Africa</td>
<td>English, read Spanish, Portuguese</td>
</tr>
<tr>
<td>Missale Kummelachew, M.S. Home Economics</td>
<td>Nutrition; Rural Development</td>
<td>Ethiopia and Egypt</td>
<td>English</td>
</tr>
<tr>
<td>NAME</td>
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<td>LANGUAGE COMPETENCE</td>
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</tr>
<tr>
<td>Theodore Mollett, Ph.D. Physiology</td>
<td>Animal Science</td>
<td>Ghana</td>
<td>English, Twi (limited)</td>
</tr>
<tr>
<td>Frances McKinney, Ph.D.</td>
<td>Program Management  Higher Education Admin.  Program Evaluation  Budget Monitoring</td>
<td>Ghana, South Africa, Jamaica, Bahamas, Mexico, Israel, Bermuda</td>
<td>English</td>
</tr>
<tr>
<td>Byungrok Min, Ph.D. Food Science and Technology, Department of Agriculture, Food, and Resource Sciences</td>
<td>Food product (frozen meat food, ice cream, fish product, etc.) development; Research on meat, seafood, and other food quality</td>
<td>South Korea</td>
<td>English, Korean</td>
</tr>
<tr>
<td>Abhijit Nagchaudhuri, Ph.D. Engineering</td>
<td>Control Systems; Robotics; Mechanical Design; Statistical Quality Control</td>
<td>India, Japan and Puerto Rico</td>
<td>Bengali, Hindi, Spanish, English</td>
</tr>
<tr>
<td>Joseph M. Okoh, Ph.D. Inorganic Chemistry</td>
<td>Environmental Chemistry  Water Quality, Reaction Dynamics</td>
<td>Nigeria, Ghana, South Africa</td>
<td>English, Yoruba, Igbanke, Ibo (Limited)</td>
</tr>
<tr>
<td>Emmanuel Onyeozili, Ph.D. Criminology</td>
<td>Democracy and Governance; Judicial Reform; Conflict Resolution</td>
<td>Nigeria, Ghana, Sierra Leone, Gambia and Liberia</td>
<td>English, Igbo</td>
</tr>
<tr>
<td>NAME</td>
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<td>COUNTRY OF EXPERIENCE</td>
<td>LANGUAGE COMPETENCE</td>
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<tr>
<td>Maryam Rahimi, Ph.D.</td>
<td>Rehabilitation Services/Counseling, Higher Education</td>
<td>Iran</td>
<td>Persian, Farsi, English</td>
</tr>
<tr>
<td>Rehabilitation and Higher Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Douglas Ruby, Ph.D., Zoology</td>
<td>Conservation biology of Amphibians and Reptiles, Animal Behavior, Eco-tourism</td>
<td>Dominican Republic, Trinidad, Suriname, Guatemala</td>
<td>English</td>
</tr>
<tr>
<td>Jurgen G. Schwarz, Ph.D., Food Science and Technology</td>
<td>Food processing, food safety.</td>
<td>Germany</td>
<td>English, German</td>
</tr>
<tr>
<td>Angurah Shaw, Ph.D., Textile Technology</td>
<td>Textile Testing, Protective Clothing for Pesticide Applications</td>
<td>India and Western Europe</td>
<td>English</td>
</tr>
<tr>
<td>Thelma Thompson, Ph.D., English Literature</td>
<td>Higher Education Administration, Curriculum Development, Literature of the African Diaspora, Diversity and Culture, and Higher Education Accountability and Accreditation</td>
<td>Jamaica, Barbados, England, Scotland, France, Switzerland, Italy and Canada</td>
<td>French (read only) English</td>
</tr>
<tr>
<td>NAME</td>
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<td>COUNTRY OF EXPERIENCE</td>
<td>LANGUAGE COMPETENCE</td>
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</tr>
<tr>
<td>Stephan Tubene, Ph.D. Agricultural Economics</td>
<td>Production Economics; International Agricultural Development; Agribusiness Management; Project Management; Project Identification, Design, and Implementation; Institutional Development; Economic Development; Impact Analysis; Needs Assessment; Performance Monitoring and Evaluation Planning; Agricultural Policy; Technology Development and Transfer; International Trade; Price Analysis; Small and Micro-Enterprise Development; Rural Development and Small Farm development</td>
<td>Kenya, Sudan, Ghana, South Africa, Senegal, Jamaica, Belgium, France, South Korea, Germany, Switzerland, Belize, and Democratic Republic of Congo</td>
<td>English, French Lingala, Tshiluba, Kikongo (limited); and Swahili (limited)</td>
</tr>
<tr>
<td>Victoria V. Volkis, Ph.D., Chemistry</td>
<td>Polymer chemistry, Analytical techniques, Synthesis and homogenous catalysis</td>
<td>Russia, Israel, USA</td>
<td>English, Russian, Hebrew</td>
</tr>
<tr>
<td>Yan Waguespack Ph.D., Chemistry</td>
<td>Chemistry. Chemical and Environmental Engineering Technology Development and Transfer; Trade and Marketing; Small and Micro-Enterprise Development;</td>
<td>China (including Taiwan, Hongkong, Macau) Singapore Germany</td>
<td>English Chinese Reading knowledge of German</td>
</tr>
<tr>
<td>Kimberly B. Whitaker</td>
<td>Athletic &amp; Recreation administration and coaching. Equipment development, design and procurement. Nutrition and food distribution skills. Human Sexuality and Women’s Health/studies curriculum development and advisement.</td>
<td>USA, limited experience with international student/athletes.</td>
<td>Spanish (limited)</td>
</tr>
</tbody>
</table>
Table 2: Matrix of Faculty/Staff Areas of Competence

| Name of Faculty                     | Accounting/ | Ag Economics/ | Agr. Extension/ | Agri. Technology/ | Agr. Technology/ | Animal Sciences & Fisheries | Biotechnology | Crops & Soil Science | Democracy/ Governance/ Criminal Justice | Education/ Training | Engineering/ Technology | Environmental Sciences | Food Science/ Textiles & Apparel | Higher Education Administration | Information Technology | Institutional Development | Int'l Trade/ Marketing | Research Methodology | Project Management | Allied Health | Small Micro-Enterprise Development | Climate Change | Water & Nutrient Management | Curriculum Development |
|------------------------------------|-------------|--------------|----------------|------------------|------------------|-------------------|----------------|---------------------|------------------------------------------|---------------------|------------------------|----------------------------|-----------------------------|-------------------------------|--------------------------|----------------------------|---------------------|------------------------|------------------------|----------------------|-------------------------|-----------------|
| Emmanuel Acquah                   | X           | X            | X              | X                | X                |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Sarah Acquah                      |             | X            |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Ayodele Alade                     | X           |              |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Rakesh Arya                       |             | X            | X              |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Kathryn Barrett-Gaines            |             |              |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| J. Bryan Burrows-McElwain         |             |              |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Maurice Clark                     | X           |              | X              |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Leon Coursey                      |             | X            |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Ibibia Dabipi                      | X           |              |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Robert Dadson                     | X           |              | X              |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Monisha Das                       | X           |              |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Ejigou Demisse                    | X           | X            |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| E.N. Escobar                      | X           | X            | X              |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Tao Gong                          |             | X            |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Thomas Handwerker                 | X           | X            | X              |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Jeanine Harter-Dennis             |             |              |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Ronnie Holden                    | X           |              |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Ali Ishaque                       |             | X            |                |                  |                  |                   |                |                     |                                          |                     |                        |                             |                             |                               |                          |                     |                     |                     |                     |                       |                 |                         |                     |
| Name of Faculty          | Accounting/ Business Management | Ag Economies/ Agribusiness | Agr. Extension/ Education | Agr. Technology Dev. & Transfer | Animal Sciences & Aquaculture & Fisheries | Biotechnology | Crops & Soil Science | Democracy/ Governance/ Criminal Justice | Education/ Training | Engineering Technology | Environmental Sciences | Food Science/ Textiles & Apparel | Higher Education Administration | Information Technology | Institutional Development | Int’l Trade/ Marketing | Research/ Methodology | Project/ Management | Allied Health | Small Micro- Enterprise Development | Climate Change | Water & Nutrient Management | Curriculum Development |
|-------------------------|--------------------------------|---------------------------|---------------------------|-----------------------------|---------------------------------|--------------|---------------------|-----------------------------------------|-------------------|----------------------|-------------------|-----------------------------------|------------------------|----------------------|------------------------|----------------------|----------------------|------------------------|------------------------|--------------------------|--------------------------|
| James Junker            |                                |                           |                           |                             |                                 |              |                     |                                         | X                 |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Jennifer Keane-Dawes    |                                |                           |                           |                             |                                 |              |                     |                                         | X                 | X                     | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Lombuso S. Khoza        |                                |                           |                           |                             |                                 |              |                     |                                         | X                 |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Daniel Kuennen          | X                              | X                         |                           |                             |                                 |              |                     |                                         |                   | X                     | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Missale Kumelachew      |                                |                           |                           |                             |                                 |              | X                   |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Frances McKinney        | X                              |                           |                           |                             |                                 |              | X                   |                                         |                   | X                     | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Byungrok Min            | X                              |                           |                           |                             |                                 |              |                     |                                         |                   |                       |                     |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Theodore Mollett        | X                              |                           |                           |                             |                                 |              |                     |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Abhijit Nagchaudhuri    |                                |                           |                           |                             |                                 |              |                     |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Joseph M. Okoh          |                                |                           |                           |                             |                                 |              | X                   | X                         |                       |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Emmanuel Onyeozili      |                                |                           |                           |                             |                                 |              |                     |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Salina Parveen          | X                              |                           |                           |                             |                                 |              | X                   | X                         |                       |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Maryam Rahimi           |                                |                           |                           |                             |                                 |              |                     |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Jurgen Schwartz         |                                |                           |                           |                             |                                 |              |                     |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Angurah Shaw            |                                |                           |                           |                             |                                 |              |                     |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| George Shorter          | X                              |                           |                           |                             |                                 |              | X                   |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Thelma Thompson         |                                |                           |                           |                             |                                 |              | X                   | X                         |                       |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Stephan Tubene          | X                              |                           |                           |                             |                                 |              | X                   |                                         |                   |                       |                     |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Victoria Volkis         |                                |                           |                           |                             |                                 |              |                     |                                         |                   |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Yan Waguespack          | X                              |                           |                           |                             |                                 |              | X                   | X                         |                       |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
| Kim Whitaker            |                                |                           |                           |                             |                                 |              | X                   | X                         |                       |                       | X                  |                                   |                        |                       |                         |                       |                       |                         |                       |                          |                          |
# Table 3

## Technical Assistance and Training Experiences

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<th>Technical Assistance and Training Areas</th>
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<th>Ghana</th>
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VII. UNIQUE CAPABILITIES FOR INTERNATIONAL DEVELOPMENT

A. UMES has strong capabilities in the following areas which are critical for effective economic development in Sub-Sahara Africa.

- Application of Biotechnology in rapid multiplication of clean and uniform planting materials, especially for root and tuber crops (Cassava, Yams, Cocoyams and Sweet Potatoes)
- Human Resources Development (Long and short term training) of African Nationals at all levels (formal, informal, degree, and non-degree), especially designing and implementing tailor-made training programs
- Agricultural demand driven technology development, transfer and commercialization
- Formation and development of Producer/Commodity Organizations of small rural enterprises
- Technical Agriculture (crop, soils, animals, aquacultural sciences) and Production Systems Development
- Production Support and Financial Services for rural enterprises
- Project Design and Implementation
- Project Performance Monitoring and Evaluation Planning
- Agricultural Sector Assessments
- Project Evaluations
- Institutional Development and Policy Reforms
- Administration and Management of Institutions of Higher Education

B. The Foreign Language Instructional Center (FLIC)

The University of Maryland Eastern Shore Foreign Language Instructional Center offers instruction in less-commonly taught languages including but not limited to Arabic, Hindi, Chinese, Haitian Creole as well as Spanish. FLIC’s mission is to train government, industry and university personnel who desire to study, teach or work in countries where the languages spoken are listed by the U.S. State Department as critical to national security.

Qualified instructors teach in a state-of-the-art learning laboratory featuring Rosetta Stone® and select other language software. In addition to Spring 2011 non-credit offerings for Healthcare Professionals, Early Childhood Staff, Corrections Officers, Mission Groups, Social Work/Clergy and Leisure or Business Travelers, the Center is capable of offering customized training. Credit-bearing courses are planned for Fall 2011. A keen sensitivity to cultural understanding is part of the practical instruction offered in a flexible and fast-paced format designed with the needs of the busy learner in mind.