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The Factors Affecting the Level of Women’s Participation in Agriculture in Central Serbia during a Phase of Transition
Encouraging Regional Trade with Hermetic Storage for Cowpea in West and Central Africa

Joan Fulton (PI), Jess Lowenberg-DeBoer, Murdock, Natalie Carroll, Barry Pittendrigh, Lisa Mauer, Purdue University

Purdue University will serve as the prime contractor, working with key collaborators at World Vision International (WVI) in Niger, Ghana, Senegal, Mali and Tchad; the International Institute of Tropical Agriculture (IITA) in Benin and Togo; the National Institute for Agricultural and Environmental Research (INERA) in Burkina Faso; Initiatives for the Promotion of Green Resources (PROGREEN) in Nigeria; and the Institute of Research for Development (IRAD) in Cameroon. Adaptive research will be done in Burkina Faso with INERA and in Niger with the National Institute of Agricultural Research (INRAN).

The people of West Africa, among the poorest and least-educated in the world, grow cowpea (*Vigna unguiculata*) for family food and to sell for needed cash. These impoverished people lose much of their cowpea grain to weevils during storage. Consequently, they often sell their grain at harvest, when the price is lowest. Purdue researchers have created a hermetic storage procedure that is simple to use, low-cost, and village-proven. The hermetic storage process has begun to have impact in those places in Africa where it has been disseminated, an estimated annual benefit of about $45 million thus far, even though only a minority of those storing cowpea has been reached.

The Gates Foundation grant will support the training of at least three million West Africans through large-scale, focused extension efforts so that the full benefit of this proven technique can be realized across the main cowpea belt of West and Central Africa: Benin, Burkina Faso, Cameroon, Ghana, Mali, Niger, Nigeria, Senegal, Tchad, and Togo. The first two years will focus on determining what extension dissemination methods are most effective to transfer the hermetic technology to illiterate clients in this region. In doing so, we expect to make a major contribution to the health and welfare of some of the neediest people in the world. Total population of these countries is 245,000,000, of which about 167,000,000 are involved in agriculture and about 30,000,000 make up cowpea growing families. The vast majority of cowpea growers live at the subsistence level.

**Multi-institution project:** Purdue, INRAN, INERA, WVI, IRAD, PROGREEN, and IITA.

**Amount:** $ 11,414,417

**Source:** Gates Foundation

**Funding period:** 2007 – 2012
Cultural Competence and Global Competitiveness: An Educational Approach

Roger Tormoehlen (PI), Jerry Peters, Mark Russell, Maria Marshall, Lee Stanish, Purdue University

Utilizing distance education innovations, a three-credit graduate course, Principles of International Education and Engagement, will be developed to increase international competencies of students, Extension educators, agricultural education teachers, rural leaders, and faculty. This course will be developed using a new on-line curriculum as its core, Strengthening Extension’s Capacity for International Engagement (http://www2.ces.purdue.edu/iec/default.htm), developed in 2003/04 through the Purdue-led USDA-CSREES National Initiative to Internationalize Extension grant.

In addition to this course, a three-credit course, Exploring International Education and Engagement Opportunities, will be created to provide the opportunity for students to apply what was learned in the formal class (above) to an international context by studying in Costa Rica. This four-week course will include a 10-day agribusiness education experience that will engage students with the production and value-added industries for both large and small businesses in Costa Rica. Upon the participants’ return to Indiana, their experiences will be synthesized and formally presented to agribusinesses and community organizations in Indiana. The project will utilize an advisory board including agricultural and Extension educators, agribusiness firms, university faculty, and members of the state government. This advisory board will ensure the continuous success and growth of the course and future endeavors.

Through the development of this project, the following objectives have been established:

- Use and benefit from the on-line modules, Strengthening Extension’s Capacity for International Engagement, developed for improving international competencies through a previous USDA-CSREES grant.
- Create international opportunities to prepare graduate students and extension and agricultural educators to better serve their clientele.
- Build relationships among educators, state government, and existing businesses in agriculture through business analysis reports for partnering agribusinesses to increase their international trade opportunities.
- Develop networks to strengthen Indiana and Central American agribusinesses.
- Cultivate an appreciation for life and cultural preferences in Costa Rica.
- Promote an awareness of the complex connections between farmers, consumers, farming systems in the tropics, and U.S. foreign policy.

Through these courses, travel, and agribusiness partnerships, it is anticipated that the students, faculty, staff, and state stakeholders will increase their cross-cultural competencies. Graduate students and educators will have easily accessible opportunities to develop a global understanding through distance education and adult learning strategies.

**Amount:** $98,340  
**Source:** Cooperative State Research Service, USDA  
**Funding period:** 2005 – 2008
**Fulbright Award for Sabbatical Activities at Jamaica’s College of Agriculture, Science, and Education**

**Mark Balschweid**, Purdue University

The purpose of this project was to augment salary for Mark Balschweid to spend one year teaching and conducting research in the Agricultural Education teacher education program at Jamaica’s College of Agriculture, Science, and Education. Balschweid taught Agricultural Education methods courses to the undergraduates in the program. In addition, he conducted three research projects that are ongoing that evaluated the current undergraduate student population on their perceptions of the teacher preparation program, that evaluated the perceptions of Jamaica’s secondary agricultural education students on the benefits of agriculture to their future, and evaluated the perceptions of Jamaica’s secondary Agricultural Educators on their level of satisfaction with their preparation to teach.

**Amount**: $40,000

**Source**: Council for International Exchange of Scholars; U.S. Department of State

**Funding period**: 2005 – 2006
Asian Culture as a Factor Influencing Visitation of U.S. Natural Park Areas

Potter, Brenda, Ph.D., Purdue University, December 2004.
Major Professor: Natalie Carroll (Department of Forestry and Natural Resources)

Literature shows that racial and ethnic minorities are less likely to visit and use natural park areas than European Americans. Asians make up a growing percentage of the American population, and even though their tax dollars (like everyone else’s) go to state park and national park budgets, little research has been conducted to determine if changes (even minor ones) might be made to park layouts, facilities, programming, or marketing that would encourage more Asians to visit natural park areas in the U.S. If park staffs understand Asian attitudes and preferences, then efforts can be made to attract and welcome these different cultures to American state parks. The goal of this study was to investigate the outdoor recreational preferences and attitudes of Asian university students, to explore what attitudes and preferences they brought with them from their home countries, and whether there were differences among the three Asian regions represented (South, Southeast, and East). One additional goal was to discover what specific actions/measures, if any, U.S. natural property managers could do to make American natural park areas more inviting to Asians.

Nominal group technique (NGT) and individual interview methodologies were utilized in this study. The NGT segment had 13 participants and focused primarily on specific park property characteristics and programming preferences that participants currently hold. The individual interview segment had 27 participants and focused primarily on cultural factors in participant’s upbringings that might influence their current outdoor leisure preferences. During this process, additional data concerning specific property characteristics and programming preferences were also obtained.

Results indicate that Asians need more information about American national park, from a general awareness of where parks exist to the options and opportunities available. Study participants (University students) also had trouble accessing many parks due to a lack of public transportation to the state and national parks.
An Educational Analysis of Chinese Business Development Strategies by United States Agricultural Companies: A Delphi Study

Peng, Jiajiang. Ph.D., Purdue University, August, 2009.
Major Professors: Roger Tormoehlen and B. Allen Talbert.

A three-round Delphi study was conducted to identify key components and their importance in development of an effective U.S.-China business partnership by U.S. agricultural companies. Thirty-seven (37) panel members completed the first round survey with 34 of them completing the second and third round surveys. The panel members were U.S. agriculture business experts who understood the research topics, had international agriculture business experience, and were willing to share such experiences. Panel members were purposefully selected to represent the agricultural industry, government, and higher education sectors. In summary, the panel generated a total of 63 key components that U.S. agricultural companies should consider when entering the Chinese market. These key components were categorized into nine groups: ethics and trust; language and culture; Chinese markets; political and economic climate in China; product advantages and customer service; human resources and labor costs in China; networks and partnerships in China; Chinese business practices; and legal counsel and intellectual property in China. Of the 63 key components, approximately 32% reached a high consensus level, 65% reached a moderate consensus level, and 3% reached a low consensus level. Also, all 63 key components were rated by the panel as at least moderately important. Approximately 22% of the 63 key components were considered essential, 65% were considered very important, and 13% were considered moderately important. The panel members were also asked to rate the importance of the training topics for U.S. agricultural companies wishing to enter the Chinese market. Of the nine training topics for which training was recommended for U.S. agricultural companies, the “product advantages and customer service” group reached high consensus level among the panel. The other eight training topics reached moderate consensus level. Also, of the nine training topics, the “ethics and trust” as well as the “Chinese markets” were both considered as essential by the panel for including into training programs that U.S. agricultural companies should consider when entering the Chinese market. The other seven training topics considered as very important were: language and culture, political and economic climate in China, product advantages and customer service, human resources and labor costs in China, networks and partnerships in China, Chinese business practices, and legal counsel and intellectual property in China.
Participants' Perceptions of a Nonformal Adult Education Program in Ghana: The Case of the New Year School

Manns, DaBeth S., Ph.D., Purdue University, December 2003.
Major Professor: Mark A. Balschweid

The present case study used the phenomenological theoretical framework to report on the overall perceptions of participants about the New Year School. A nonformal adult education program in Ghana, West Africa, the New Year School is an annual conference, which features presentations and seminar study groups. It has taken place for the last 54 years. Together, scholars, professionals, and citizens from around the country convene on topics ranging from the improvement of agricultural production to the development of family and community, to the increasing of national awareness concerning economic, political, and social issues.

In this study, the researcher initially assumed that all of the participants’ perceptions would be laudable. However, the major findings indicated that this conjecture could not be accepted. That is, while participants had a multitude of praiseworthy opinions, constructive criticisms abounded. Specifically, praiseworthy opinions included appreciation for the interaction, networking opportunities, and diverse views shared. Constructive criticisms included the limited provisions for learners at a distance, the choice of only one study group, and the requisite conference costs.

This study is momentous because it provides a model for future case studies, which strive to understand the phenomenon of adult education, as it is practiced outside of the United States of America. This is significant because cross cultural studies establish a basis for linkages and partnerships, wherein exchanges of faculty and students as well as collaborative research projects may flourish.
Preparing Indiana Extension Educators for a Global Community

Selby, Kelli A. M.S. Ed., Purdue University, May, 2004.
Major Professor: Jerry L. Peters

This study was designed to assess the current involvement in and training needs for Purdue Cooperative Extension Educators relevant to their international programming needs. Objectives of this study included the determination of demographic information, including gender, race, years in Extension, program area, foreign language abilities and travel experience and the determination of current involvement, training needs, learning methods, future programming efforts and barriers related to internationalizing Extension. The instrument used in this study was adapted from two surveys, developed by Ludwig and Barrick (1996) to define the internationalization of Extension and Ludwig (1999) to identify issues with the globalization of Extension professionals. A pilot test of the instrument was conducted with Extension field staff and following refinement of the instrument, all of the 260 field-based Extension educators in Indiana were sent a link to the survey web site, where they could complete and submit the survey anonymously. A 67% response rate was obtained. Seventy-six percent of respondents had previously traveled internationally, mainly for leisure. Mexico, Canada, and England were the locations in which most respondents visited. Approximately 14% of respondents are able to communicate in a foreign language. Current involvement is mainly limited to incorporating an international perspective into current programming (21%), however 53% indicated they have no current involvement. For internationally related training needs, "communicating across cultures" received the highest mean score on a 5 point scale (3.81), followed by "demographic changes in Indiana and the U.S." (3.70). The lowest mean score for training topics was "commercial agriculture vs. subsistence agriculture" (3.10). There was significant difference between training needs and the program area in which the respondents worked. The most significant barrier to incorporating international aspects in Extension was "not a priority," followed by "lack of experience." The results of this survey will also be utilized in the development of a needs-based curriculum for Extension educators. This study will help the Extension service in Indiana prepare for and respond to an expanded global mission which starts at home with our changing communities.
Attitudes of Purdue Extension Field-Based Professionals and County Extension Board Members Towards the Internationalization of Extension.

Rice, William Charles. Ph.D., Purdue University, December, 2009.
Major Professor: B. Allen Talbert.

Communities and counties in Indiana are continuing to become more diverse. An influx of immigrants over the past years is very evident in some locations. They come for good employment or because they have been displaced from their homelands. In any case, they soon become a part of the fabric of each community in which they settle.

Extension has a role in Indiana to provide information and education to the citizens of Indiana through the local county Extension Offices. As communities change there are needs that may be addressed by the Extension Educators in their county. This study was designed to determine if there were attitudes that Educators might have towards providing programming for “newcomers” to their counties. A second portion of the study was to determine the attitudes of County Board Members that provide an advisory role for the Extension Educators in directing their programs. Would the County Board Members have similar attitudes to the Extension Educators?

The study surveyed the entire population of county-based Extension Educators in Indiana (N=265). Data were also collected from the entire population of County Board Members (N=1,317). The availability of high-speed internet access made possible the use of an electronic survey conducted through Zoomerang© for the Extension Educators.
County Board Members were given the option of utilizing the electronic survey or they could opt for a paper instrument. The survey consisted of 37 questions to assess attitudes and beliefs about the internationalization of Extension in their communities. All responses were kept confidential and results were reported in aggregate form.

Extension Educators tended to view internationalization more positively than did County Board Members. The attitudes of the Extension Educators were more positive based on the means for the five scales of Benefit, Knowledge Needed, Local Attitude, Staff Impact, and Local Assistance. However, there were some differences in the attitudes of Extension Educators and County Board Members that were associated with the Extension program area (ECD, CFS, ANR, and Youth) with which they reported the greatest degree of responsibility or association.
Assessment of cross-cultural professional development: Short-term immersion experience in Mexico

Snaza, Jessie A., M.S., Purdue University, December, 2008.
Major Professor: Brian A. Talbert.

In the spring of 2007 a group of Purdue University Cooperative Extension Service educators and community partners participated in a nine-day cultural immersion trip to Mexico. Through the collection of data from qualitative interviews, the study aimed to identify the role that a short-term international immersion experience could play as a professional development tool. By looking at what participants gained from the trip with regard to knowledge, cognitions, professional development and actions, the study provided an overall picture of learners’ self reported outcomes and also identified the motivations and reasons that individuals choose to participate. The study found that many participants shared motivations for choosing to participate; showed signs of changes in perspective, perception and attitudes; and perceived benefits to their professional development. More significant were the number of actions that participants took as a result of the trip.
Perceived Benefits of Polish 4-H in the Swietokrzyskie Voivodship of Poland

Stanish, Lee Edward. M.S., Purdue University, December 2009.
Major Professor: Jerry L. Peters.

The purpose of this study was to collect data from various Polish 4-H audiences to better understand the Polish 4-H system, and determine its benefits. The objectives included: 1) To describe basic characteristics of Polish 4-H; 2) To describe the interaction between Polish 4-H and the Polish public school system; and 3) To explore the perceived benefits of the 4-H program in the Swietokrzyskie Voivodship as viewed by school administrators, 4-H Leaders, parents, 4-H members, and 4-H alumni. A mixed methods approach was used to obtain data for analysis. The target population for this study included 234 participants residing in the Swietokrzyskie Voivodship. Findings were that a majority of participants surveyed were female. Participants perceived 4-H as useful for individual development, as a teaching method, and as a tool for local community development. Approximately 83% of respondents reported that 4-H participation improves students’ grades in school. Of the 234 respondents, 28 were able to travel on an international exchange through 4-H. Many youth noted how 4-H had improved their self-confidence, organized their leisure time, developed their passions, and positively influenced their chosen lines of study.
Agriculture has always played an important role in the history of any country. In virtually all developing countries, agriculture is an industry of major proportions, and often the only existing industry of any consequence. Historically, women have played an important role in agriculture, taking on a wide range of activities related to food production, marketing, and processing. The role of women in agriculture and rural life has been especially important in Serbia. Due in part to its turbulent past, the population of Serbia, most especially its rural population, had to forge a new path in the country’s post-conflict transition economy. Between the years of 1993 to 1999, the total number of individuals involved in agriculture or fishing in Serbia has decreased. The total percentage of women participating in this sector, however, has risen. Little is known about the role women play in the economic activities of agriculture in Serbia.

The purpose of this study is to document the factors affecting the level of women’s participation in agriculture in Central Serbia. This study is designed to provide new insights into the current situation of specific females involved in various aspects of agriculture in Central Serbia, and contribute to the knowledge base which is needed on women in this region.

The phenomena under study utilized a qualitative methodology. Feminist critical theory and social change theory were the inquiry paradigms that support this study. The methodology used to examine the factors affecting the level of women’s participation in agriculture in Central Serbia utilized a phenomenological inquiry and heuristic inquiry approach. Through the use of a formal gatekeeper, participants, both men and women, were purposively selected from a range of agricultural fields: business, production, policy, and education. Data were collected through the use of in-depth interviews, focus groups, and additional document sources. Findings from this study indicate that various economic, cultural, and political factors affect the level of women’s participation in agriculture in Central Serbia.