

## GL-CRSP TRAINING SUMMARY FOR 2006-2007

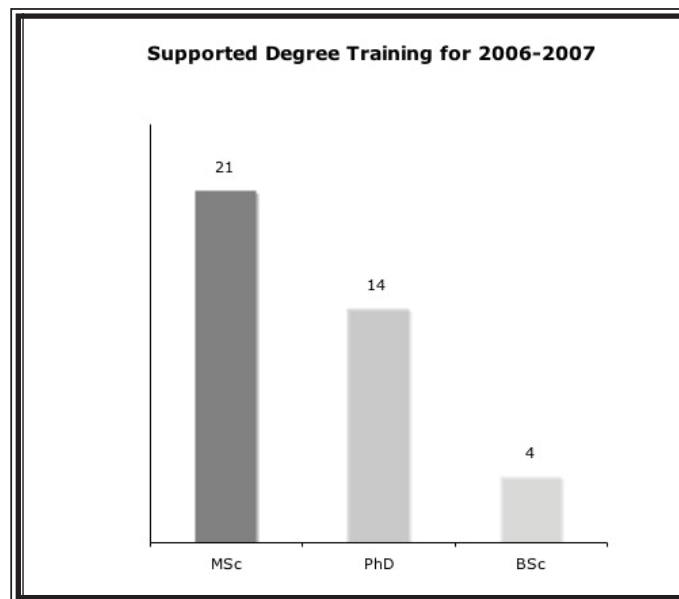
*Training has always been integral to the CRSP portfolio, and the Global Plan of the GL-CRSP recognizes human capacity building as a fundamental component of research and development. The GL-CRSP design, therefore, provides for a wide range of training possibilities and employs both traditional and innovative strategies to achieve its training goals.*

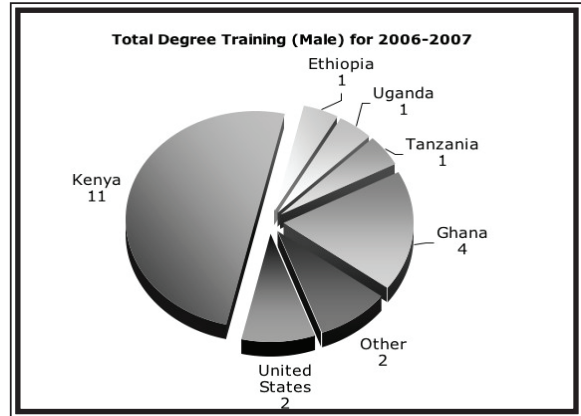
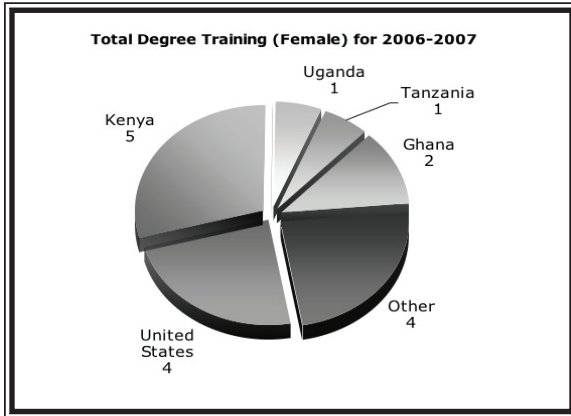
**Degree Training.** The GL-CRSP provides funding for operational and research costs to both U.S. and host-country graduate students. Project team members are encouraged to leverage funds to support tuition.

**Non-Degree Training.** Short-term training provides a cost effective means to build capacity. Training workshops and courses build capacity for not only students, but for community members, project participants, host country professors, researchers and other development professionals as well.

### DEGREE TRAINING STATISTICS FOR 2006-2007

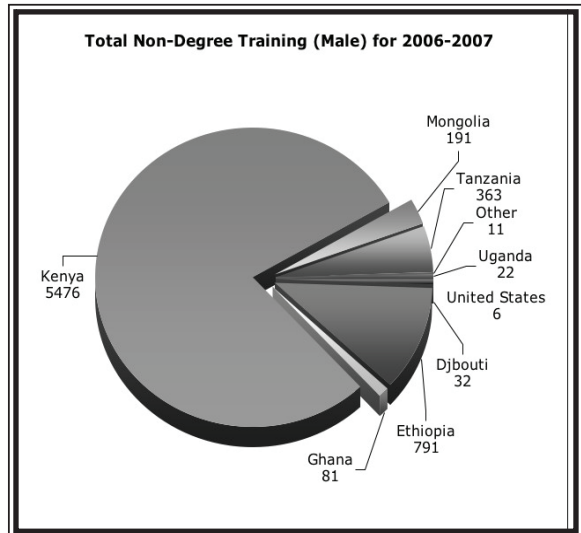
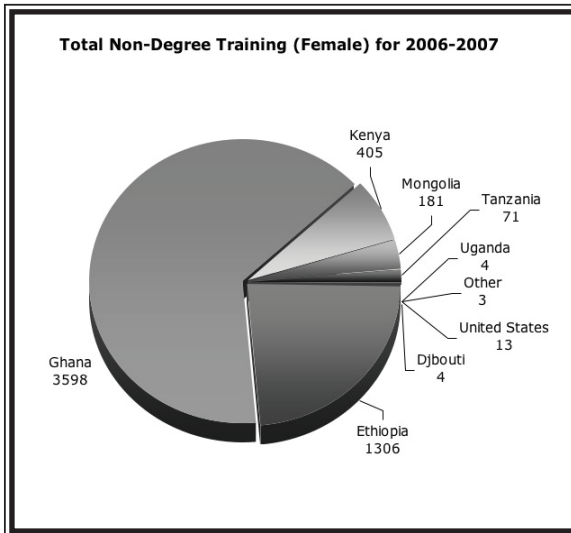
- Thirty-nine individuals (17 females and 22 males) were supported in long-term degree training programs in nutrition, veterinary medicine, agricultural economics, range science, human ecology, and hydrology. Three of these individuals completed Ph.D. programs, and three completed M.Sc. degrees this year.
- Approximately 72% of the supported students are from African countries.
- Twenty are continuing students from previous years, and 19 are new students.





**NON-DEGREE TRAINING STATISTICS FOR 2006-2007**

- In 2006-2007, a total of 12,558 people participated in GL-CRSP project trainings. Many participants attended multiple trainings, resulting in 27,078 total attendances at all trainings.
- Approximately 6,708 individuals were supported in short-term knowledge and technical skill training programs on topics ranging from nutrition, health, and livelihood enhancement, to livestock marketing, database management, and appropriate technology development.
- An additional 5,850 individuals (350 females and 5500 males) underwent long-term, seven-month livestock awareness trainings in livestock marketing in eastern Africa.
- In total, 5,585 females and 6,973 males were trained through GL-CRSP projects.



## THE JIM ELLIS MENTORSHIP PROGRAM

Named in honor and memory of Dr. Jim Ellis, a renowned scientist, mentor and GL-CRSP principal investigator, these awards provide partial support to students in order to improve the overall quality of their research. The program provides funds to conduct research in specialized facilities or field settings away from their home campuses and to provide opportunities for greater diversity in collecting data and more creativity in analysis than would otherwise be possible. The awards are intended to provide supplemental funds for students already working on GL-CRSP projects.

## JIM ELLIS AWARD RECIPIENTS FOR 2006-2007

### *Kimberly Harding, Ph.D. Candidate, Nutrition, McGill University, ENAM Project*

Ms. Harding received a Bachelor of Kinesiology (Honours) from McMaster University in 2004. During her undergraduate degree she spent one summer volunteering in rural El Salvador on a home construction project. This experience initiated her interest in international development. Before returning to further her studies in that area, she spent two years teaching English in Japan. Jim Ellis funding enabled her to complete research for her masters thesis, entitled “Dietary Intakes and Nutritional Status of Rural Ghanaian Children: Are Season and Attending Daycare Important Determinants?”

**Research problem.** High rates of child malnutrition are a serious concern in Ghana, particularly in rural areas. In order to address this problem, the study looked at two potential determinants of rural children’s diets in two distinct agro-ecological zones of Ghana:

1. Seasonal changes in food availability in the northern Guinea Savanna zone
2. Daycare center feeding programs in the mid-country Transitional zone

**Research design and methods.** In the northern Guinea Savanna, interview-administered questionnaires with caregivers were used to collect 24-hour dietary recall along with other relevant information (morbidity, demographic and socio-economic data). Data were collected on 190 children aged two to five years in the ‘lean’ season, prior to harvesting (June-July) and then again on the same children in the ‘plenty’ season, following harvesting (November-December). Height, weight and hemoglobin data were also collected (height and weight in both seasons and hemoglobin in the ‘plenty’ season only). Northern Ghana was chosen for this aspect because the area has only one annual rainy season, and therefore only one harvest, compared to the rest of the country, which has two wet seasons and hence two harvests.

In the mid-country Transitional zone, interview-administered questionnaires with caregivers were used to collect 24-hour dietary recall along with other relevant information (morbidity, demographic and socio-economic data). Data were collected on 199 children aged two to five years, approximately half of whom attend a daycare center with a feeding program, the other half of whom do not attend any school. Height, weight and hemoglobin data were also collected. The mid-country transitional zone was selected for this aspect because the ENAM communities in this zone have daycare centers with feeding programs.

**Results.** Data were analyzed for an abstract submitted for the Experimental Biology conference entitled: “A comparison of child nutritional status in two agro-ecological zones of Ghana: Is location an important determinant?” The analysis compared child anthropometric nutritional status in the two zones (northern Guinea Savanna and mid-country Transitional) and found no differences in rates of underweight (weight-

for-age), wasting (weight-for-height) or stunting (height-for-age). Both mean weight-for-age and weight-for-height Z-scores, however, were significantly lower in the northern Guinea Savanna as compared to the Mid-country Transitional. There was no significant difference in mean height-for-age Z-score between the two zones.

**Implications of findings for science and development.** The findings thus far show that effective nutrition intervention programs need to understand the selective influence that geographic location may have on child nutrition in Ghana in order to be timely and locally appropriate. Results from the remainder of the data will provide information on determinants of dietary intake and nutritional status of rural Ghanaian children. This information will contribute to the understanding of the malnutrition problem in Ghanaian children and can inform future interventions and policy recommendations in the area of child health in Ghana.

***Michel Masozera, Ph.D. Candidate, Ecological Economics, University of Vermont, HALI Project***

Mr. Masozera was trained as a biologist and received his undergraduate degree with a specialization in wildlife ecology and conservation from the University of Kisangani, Democratic Republic of Congo. After working in Nyungwe, Rwanda with the Wildlife Conservation Society (WCS) as a Project Manager, he went to on pursue a Master of Science degree in Forest Resources and Conservation, with a specialization in socio-economics and policy at the University of Florida, Gainesville.

His thesis focused on the socioeconomic impact analysis of the conservation of Nyungwe Forest National Park. Upon graduation, Mr. Mazozera returned to Rwanda, his home country, to work in conservation at the national level as the Country Program Director for the Wildlife Conservation Society (WCS). In 2005, he began to pursue a Ph.D. in ecological economics at the University of Vermont, where he began collaborating with the GL-CRSP HALI project.

**Research summary.** Mr. Masozera's dissertation research aims at assessing how water management and disease affect the health and livelihoods of pastoral and agropastoral communities at the human, livestock and wildlife interface in the Rungwa-Ruaha Landscape, Tanzania. Specifically, the study will: 1) Assess the effect of water limitation and disease on Maasai, Barabaig and Sukuma household economies, 2) Estimate the economic impact of water flow reduction on disease among pastoralists and their livestock, and 3) Assess agropastoralists' and pastoralists' attitudes toward disease, disease management and livestock/wildlife extension services.

Accomplishments in 2006-2007 include the following:

- Training of two socioeconomic research assistants (Eric Guga and Miriam Nguvava).
- Completion of the cross-section socioeconomic survey for one wet and dry season (one full year). With a target of 30 subsamples, 15 have been surveyed, and the remaining 15 will be surveyed before the end of December.
- Initiation of village-level surveys to capture information on other economic activities. This information will complement the socioeconomic surveys and will help to develop the village economy models.
- Initiation of district- and village-level focus group surveys. This information will be used in designing a questionnaire that will be provided at district-level workshops to evaluate the trade-offs among different land use options in August 2008.

Altogether, this data will provide a socio-economic profile of household productivity and consumption, which will form the basis for assessing the social and economic dynamics and spatial patterns in the community, to allow for a linkage between socio-economic elements, livelihoods, disease, and water management practices in Ruaha.

### **BORLAUG LEAP FELLOWSHIP PROGRAM**

The Borlaug LEAP (Leadership Enhancement in Agriculture Program) is a fellowship program funded by the United States Agency for International Development (USAID) to enhance the quality of thesis research of graduate students from developing countries who show strong promise as leaders in the field of agriculture and related disciplines as defined by Title XII. LEAP is part of the overall Borlaug International Agricultural Science and Technology Fellows Program sponsored by the USDA.

### **BORLAUG LEAP FELLOWS FOCUSING ON LIVESTOCK RESEARCH IN 2006-2007**

#### ***Caroline Wambui, Ph.D. candidate, Animal Science, Egerton University***

Kenyan, Caroline Wambui is currently enrolled in the Ph.D. program at Egerton University, Njoro, Kenya, in the Animal Science Department. Ms. Wambui's research will investigate the anthelmintic potential (potential to expel parasitic worms) of browse species commonly used as fodder in Kenya. It is expected that from this study, browse species with anthelmintic properties will be identified and recommendations extended to farmers on their utilization as protein supplements and usage in the control of intestinal worms. Furthermore, the research is expected to help reduce the use of synthetic oral drenches that are not only expensive, but have residual effects in animal products, which could be detrimental to human health. Dr. James Muir of Texas A&M University and Dr. John Githiori of ILRI are mentoring Ms. Wambui. She will be conducting her field research under the supervision of Dr. Githiori in Kenya.

#### ***Sommarat Chantararat, Ph.D. candidate, Economics, Cornell University***

Thai, Sommarat Chantararat is currently enrolled in the Ph.D. program at Cornell University in the Economics Department. Ms. Chantararat's research will investigate the application of various index-based risk transfers products (IBRTPs) to pastoralist and agro-pastoralist populations in East Africa and will offer several important extensions to the broader, emerging literature on IBRTPs. IBRTPs represent a promising option for managing climate-related risks to which pastoral and agropastoral households are exposed. IBRTPs are financial instruments that make payments based on realizations of an underlying – transparent and objectively measured – index (e.g. amount of rainfall over a season, cumulative temperature or area average livestock mortality) relative to a pre-specified threshold. Dr. Christopher Barrett of Cornell University and Dr. Andrew Mude of ILRI are mentoring Ms. Chantararat.

#### ***Michel Masozera, Ph.D. candidate, Ecological Economics, University of Vermont***

Rwandan, Mr. Masozera is currently a Ph.D. candidate in Ecological Economics at the University of Vermont. A detailed description of Mr. Masozera's background and research can be found above under the Jim Ellis Mentorship Awards section. Dr. Jon Erickson of the University of Vermont, and Dr. Esther Schelling of ILRI are mentoring Mr. Masozera.