

Gender Equity, Knowledge, and Capacity Building

Principal Investigator

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Summary

Research by the IPM CRSP has dispelled the myth that women do not participate in management of pests and diseases in crops. On the contrary, in many IPM sites women have considerable influence over agriculture production returns, sustainability impacts and household food security outcomes. For these reasons, and more, the IPM CRSP is committed to ensuring that priority pest management problems are decided with consideration of gender issues. The GGT incorporated and built gender expertise within the Regional Programs, implemented workshops to raise awareness about gender issues, and identified gender-based constraints and opportunities for IPM. Qualitative and quantitative research was initiated and laid the groundwork for upcoming targeted research that will make significant contributions to the program.

In accordance with the goals of the Gender Global Theme, IPM CRSP has played a role expanding the resources and opportunities for women to be informed and productive farmers through a commitment to gender equity and women's involvement in the program. IPM technologies can also create income-generating opportunities for women to be involved as laborers or in cottage industries implementing new technologies. In order for women to benefit as intended from such technologies, the knowledge generated regarding IPM packages must be transferred to women and the resources required for such packages must be made accessible to women. The goal of achieving gender equity has been addressed

through identifying and incorporating gender experts into regional gender teams lead by a gender regional coordinator, creating a gender directory of team members for effective collaboration, conducting trainings with women leaders, and tracking women's participation in IPM programs.

Capacity building includes supporting graduate students, gender awareness workshops, field work with farmers and the production and distribution of Information, Education, and Communication (IEC) materials. In long-term training programs, we have encouraged RPs to select equal numbers of men and women students, increasing the number of women in male-dominated agricultural sciences worldwide. A gender balance was sought in all short-term training activities as well, including technology transfer workshops with women and men farmers and with research and extension personnel. The GGT PI, in coordination with RPs, organized and facilitated a series of gender and participative methodology workshops in each region, with the exception of Central Asia which took a step towards this by participating in a Train-the-Trainers workshop at Virginia Tech. These workshops helped increase RP gender awareness, empower the local gender coordinator and began a process of growing gender capacity in the teams. The attendance at such workshops was very close in numbers of men and women.

While the focus of this first year was objectives one and two, and specifically building teams and capacity, the research objective was launched with the gender and participative methodology workshops. In many cases, the workshop served to initiate a rapid gender assessment using the Gender Dimensions Framework (GDF). The GDF was used to identify gender-based constraints and

document the disadvantages faced by women, while also pointing to the opportunities for increasing gender equity and benefits to women through IPM. The rapid gender assessments lead to the identification of strategies and interventions to ensure that both women and men benefit from the RP activities.

Increase of gender equity and broadening of impacts

Gender experts have been identified in all regions and are working as a part of the overall IPM team.

A Regional Coordinator was appointed in five regions; the West Africa RP is still in the process of selecting a person for this role.

By creating gender teams, we have increased the number of women participating in regional programs as well as increasing the number of social scientists (see table below for full gender teams per region, including country point people, resources and regional coordinators).

The IPM CRSP has significantly increased its gender expertise. Several members of the gender team specialize in gender and have long experience working with agriculture and technology projects. For example, Dr. Alifah Sri Lestari has 19 years of experience in program development, specifically in the areas of participatory monitoring and evaluation for communities and participatory-based training in Indonesia and across Asian countries. Dr. Lestari has worked as the Participatory Monitoring and Evaluation Specialist and Gender Coordinator for the United States Agency for International Development Environmental Services Project (USAID ESP).

Dr. K. Uma is an Associate Professor in the Department of Agricultural and Rural Management at Tamil Nadu Agricultural University (TNAU) in Coimbatore, India. She specializes in gender issues in management and development management, and was named the “Best Researcher for Gender Development” by TNAU in 2004. Dr. Uma has conducted research in areas such as gender and the

Regional Program	Coordinator	Title in HC Institution
Latin America and the Caribbean	Ing. Elena Cruz	Technician, Instituto Nacional Autónomo de Investigaciones Agropecuarias (INIAP); (MSc in Environmental Socioeconomics)
West Africa	To be determined	
East Africa	Dr. Margaret Mangheni	Professor (Agricultural Extension), Makerere University; Associate Dean, College of Agriculture
Central Asia	Dr. Linda Racioppi	Professor (Government and Politics), James Madison College, Michigan State University
Central Asia	Dr. Zahra N. Jamal	Assistant Professor (Anthropology & Middle Eastern Studies) & Program Director, Central Asia and International Development, James Madison College, Michigan State University
South Asia	Dr. K. Uma	Associate Professor (Agriculture & Rural Management), Tamil Nadu Agricultural University
South East Asia	Alifah Sri Lestari	Consultant/Member of Executive Board of Directors, FIELD Indonesia Foundation (Public Administration & Agriculture: Pest and Disease Control, Entomology)

provision of public goods; gender and biotechnology; impacts of agricultural training for women on technology adoption and household livelihood security; rice productivity; and energy use.

As a professor, Dr. Herein Puspitawati has developed many curricular materials for teaching courses on gender theories, gender in the family, and gender equality in education. She has served as a member of the National Experts Team of Gender Mainstreaming in the Department of National Education for the Republic of Indonesia- Jakarta. She has also worked as a Gender and Family Welfare Specialist in The Pro-Poor Planning and Budgeting Project cooperation between Bappenas (National Development Planning Agency) and the Asia Development Bank (ADB). She was also Program Manager of Family Empowerment & Vice Head of the Center for Women Studies, Research Center, Bogor Agricultural University.

Dr. Margaret Mangheni has worked as a team leader of gender mainstreaming for Makerere University's faculty of agriculture as well as the Client Oriented Agricultural Research and Development (COARD) Project of Uganda's National Agricultural Research Organization. She has produced several publications on gender and agriculture, and gender mainstreaming, and she is currently serving as the Principal Investigator of a research project entitled "Understanding the gender dimensions of the impact of climate change on agriculture and adaptation among small scale farmers in Uganda."

Dr. Zahra N. Jamal is a core faculty member of the Center for Gender in Global Context at Michigan State University, and has produced a number of publications and presentations on gender and Islam, and gender and service. Her research and teaching interests include (trans)nationalism and diasporas, citizenship and civic engagement, religion, gender, ethics, and ethnographic methods.

Dr. Linda Racioppi's expertise is in comparative politics (including gender and power) and international relations (including feminist international relations theory). Dr. Racioppi is the co-author with Katherine O'Sullivan of *Women's Activism in Contemporary Russia* (Temple University Press, 1997). She has published articles and book chapters on Soviet arms transfers, women and Russian nationalism, women's organizing in Russia, and gender and ethnic conflict in Northern Ireland.

Elena Cruz has an MSc in Environmental Socioeconomics and has been working with rural development projects in Ecuador for many years. She has carried out gender research for SANREM as well as IPM CRSP.

Dr. Mah Koné Diallo is responsible for gender mainstreaming and training programs with women farmers in OHVN.

A CRSP-wide gender directory including all regional coordinators, country point people, and key contacts has been compiled and is ready for publication on the IPM CRSP website.

Gender workshops held in all of the regions were led by women facilitators. These stressed the need to involve women trainers in future activities. Furthermore, participants were trained to include women-only trainings led by women, and practiced this through the focus group activities carried out in the workshops which included field work. An important impact of the workshops has been to demonstrate the importance of focus groups separated by gender.

Region	Country	Name	Program Title	Title in HC Institution
Latin America and the Caribbean	Ecuador	Ing. Elena Cruz	Regional Gender Coordinator/ Gender Point Person, Ecuador	Technician, Instituto Nacional Autónomo de Investigaciones Agropecuarias (INIAP); (MSc in Environmental Socioeconomics)
Latin America and the Caribbean	Dominican Republic	María de Js. Cuevas Joaquín	Gender Point Person	Enc. de Proyectos, Instituto Dominicano de Investigaciones Agropecuarias y Forestales (IDIAF)
Latin America and the Caribbean	Honduras	Yordana Valenzuela	Gender Point Person	Coordinadora Programa de Agricultura sostenible en Laderas (PASOLAC), responsable género y monitoreo y evaluación PROMIPAC. Escuela Agrícola Panamericana, Zamorano
West Africa	Mali	Ms. Aminata Doucouré	Gender Point Person	
West Africa	Mali	Mah Koné Diallo	Key Contact	Responsible for Gender Programming, Office de la Haute Vallée du Niger (OHVN)
East Africa		Dr. Margaret Mangheni	Regional Gender Coordinator	Professor (Agricultural Extension), Makerere University; Associate Dean, College of Agriculture
Central Asia		Dr. Linda Racioppi	Co-Gender Coordinator	Professor (Government and Politics), James Madison College, Michigan State University
Central Asia		Dr. Zahra N. Jamal	Co-Gender Coordinator	Assistant Professor (Anthropology & Middle Eastern Studies) & Program Director, Central Asia and International Development, James Madison College, Michigan State University
South Asia		Dr. K. Uma	Regional Gender Coordinator/ Gender Point Person, India	Associate Professor (Agriculture & Rural Management), Tamil Nadu Agricultural University
South Asia	India	Dr. S. Thiyageshwari	Key Contact	Associate Professor (Soil Science and Agricultural Chemistry), Tamil Nadu Agricultural University
South Asia	India	Dr. M. Anjugam	Key Contact	Associate Professor (Agricultural Economics), Tamil Nadu Agricultural University
South Asia	Nepal	Ms. Ambika Kumari Rai	Gender Point Person	Gender consultant, International Development Enterprises (IDE) Nepal
South Asia	Bangladesh	Mr. M. Sadique Rahman	Gender Point Person	Bangladesh Agricultural Research Institute (BARI)
South Asia	Bangladesh	Dr. Shahnaz Huq-Hussain	Key Contact and student advisor	Professor (Geography) & Chairman, University Chairperson, Dept. of Geography and Environment Dean, Faculty of Earth and Environmental Sciences University of Dhaka
South East Asia	Indonesia	Alifah Sri Lestari	Regional Gender Coordinator/ Gender Point Person, Indonesia	Consultant/Member of Executive Board of Directors, FIELD Indonesia Foundation (Public Administration & Agriculture: Pest and Disease Control, Entomology)
South East Asia	Indonesia	Dr. Herien Puspitawati	Key Contact	Gender and Family Sociologist, Bogor Agricultural University
South East Asia	Cambodia	Ms. Mam Sitha	Gender Point Person	Technical Support Officer, Ministry of Agriculture Forestry and Fisheries
South East Asia	Philippines	Dr. Maria Helen F. Dayo	Gender Point Person	Director, Gender Center, University of the Philippines Los Baños (UPLB) (Anthropologist)

The work plan for year 2 was developed in coordination with each regional program. As found in East Africa, integration of gender and impact assessment into IPM research projects is most feasible when they are on farm interfacing with male and female farmers. Therefore, the work plans of projects in all countries were reviewed so as to determine the time when gender and impact assessment integration would be done in the future, once projects are on farm.

A discussion of participation indicators was included in the gender workshop trainings. The PI is waiting for regional program gender reports which include an indicator chart. We will be developing further qualitative indicators during FY 2; this will be part of the monitoring process.

Capacity Building: Empowering teams to integrate gender

A Gender and Participatory Methodology workshop has been conducted for each regional program. The GGT PI led all of these, except for the South Asia workshop which was led by the Regional Coordinator from India. (The West Africa workshop was carried out at the conclusion of the previous phase and served as a model for future workshops. For this reason, we did not carry out a new workshop in West Africa. Due to conditions in the region, the Central Asia program sent their two co-coordinators to Virginia Tech for a “Train the Trainers” workshop. They will use this training to implement a workshop in Tajikistan in the future.) In three of the regions (LAC, S. Asia, W. Africa), the workshops included collection of field data in a 3 - 4 day workshop. Workshops

in the other regions were one day only. These longer workshops have gathered initial qualitative data on gender relations and have served to teach the regional coordinators how to run these workshops in other areas. In the case of LAC, the representative from the Dominican Republic will reproduce the workshop on a smaller scale in that country in FY 2. This was made possible in part because in all workshops, a full copy of workshop materials were left on CDs.

Workshops

The numbers below do not reflect the number of farmers involved in Focus Group activities that were carried out as part of the workshop but rather the participants who attended the full workshop. The disproportionate number of women to men (90 to 63) reflects a bias in partner institutions which tends to associate gender with women and send women to “gender events” - as well as the greater interest exhibited by some women in such aspects.

Networking with US and HC institutions was encouraged during workshops and kick-off meetings. Gender specialists from IPM CRSP or neighbor institutions participated in the gender workshops. Due to limited funding, RPs expressed resistance to working outside of their institutions and devoting 20% of the limited gender funds in the future to this. In cases where gender expertise has been identified within the partner institutions, this seems acceptable. However, in the case of RPs needing to look outside for gender expertise, as may be the case in Central Asia and West Africa, this is still encouraged.

Online teaching modules have been created for the use of IPM team members regarding gendered space, gendered knowledge, and postcolonial feminist theory, and are available on the Virginia Tech scholar website. They are not on the IPM CRSP website for copyright reasons, but can be made accessible to any of our partners upon request.

Research: Producing and disseminating knowledge of gender issues

Students have been identified for gender research in the United States and Bangladesh.

Gender questions for impact assessment surveys were developed in conjunction with the impact assessment global theme, and included in South Asia, Latin America and the Caribbean's surveys. In East Africa, questions

Date	Regional Program	Host Country/ Sponsor	Participating Countries	Title	Facilitators	Participants	
						Male	Female
June 15-18, 2009*	West Africa	Mali/ OHVN	Mali, Senegal, Burkina Faso, U.S.	Atelier régional sur le genre et méthodologies participatives dans la recherche agricole	Maria Elisa Christie; Marie Cécile Sidibé; Mah Koné Diallo	16	17
April 7-10, 2010	Latin America & the Caribbean	Ecuador/ INIAP	Ecuador, Dominican Republic, Honduras, U.S.	Género y metodologías participativas en investigación agrícola	Maria Elisa Christie; Elena Cruz	13	12
14-May-10	Central Asia	Virginia/ OIRED VT	U.S.	Train the Trainers: Workshop on Gender and Participatory Methodologies in Agricultural Research for the IPM CRSP Central Asia Regional Program	Maria Elisa Christie	5	3
19-Jun-10 (Full day with gender team and PI)	East Africa	Uganda/ Makerere University	Kenya, Uganda, U.S.	Gender and Participatory Methodologies in Agricultural Research and IPM Global Theme	Maria Elisa Christie; Margaret Mangheni	1	5
22-Jun-10 (half-day with EA team at annual meeting)	East Africa	Uganda/ Makerere University	Uganda, Kenya, Tanzania, U.S.	Gender and Participatory Methodologies in Agricultural Research and IPM Global Theme; ME & USAID Gender Requirements	Maria Elisa Christie	6	8
22-Jul-10	South East Asia	Indonesia/Bogor Agricultural University	Cambodia, Indonesia, U.S.	IPM CRSP Southeast Asia Regional Program Gender and Participatory Methodologies Workshop	Maria Elisa Christie; Alifah Lestari	2	13
15-18 - Sept-2010	South Asia	India/ Tamil Nadu Agricultural University	India	Gender Equity, Capacity building and Research in IPM		20	32
Total:						63	90

were developed together with co-PI Dan Taylor and gender regional coordinator Margaret Mangheni. The Dominican Republic's survey is currently being carried out now. In Ecuador, the GGT worked with the PI to include significantly greater numbers of women in their baseline survey so that both men and women would be interviewed in households.

Rapid gender assessments (RGAs) have been conducted in the following regions during the gender workshop: Southeast Asia, South Asia, East Africa, Latin America and the Caribbean. As a follow-up to the workshops, researchers carried out rapid gender assessments in Ecuador, India, Indonesia and Uganda. These set the groundwork for identifying case studies for future research.

Where full RGAs have not been carried out in all regions, some gender-based constraints and opportunities were identified. The reporting format for case studies based on the RGA includes a place for these under each of the four dimensions listed above in the Gender Dimensions Framework. Thus far, for example, the India workshop clearly identified an opportunity for transmitting information to women in India using the radio and television media, because women noted that radios were the most commonly available and most common source of information for them. This is important because women are not getting their information primarily from traditional farmer field schools, but rather alternative technologies. Additionally, in West Africa, adult literacy classes were identified as a key location for potential education on IPM, and were one of only two sites in the community which women reported that they controlled. Having women present IPM information in these settings would serve to empower women trainers, reach more women farmers, and potentially increase their knowledge and odds ratio to adopt IPM technology. This is important because worldwide, as also noted in Ecuador and in Indonesia, women are less

comfortable with technology changes simply because they are not trained.

In Indonesia, the purpose of the activity for year 1 was to examine the gender roles in kitchen space and home yards which include access, control, and participation over the resources. The team conducted 2 separate Focus Group Discussions with women and men groups to identify the gender issues related to IPM in kitchen and garden spaces. The objective of having 2 separate discussions was because the team wants to compare the different perspective among men and women on the issues above. The activities were conducted at Sindangjaya Village, Cipanas Sub-District, Bogor District, in West Java Province-Indonesia in September and October 2010. The participants of the study were 10 females and 11 males of farmers. It was found that the activities in the kitchen space were mostly dominated by women whether in access, control or participation. While activities in home yards related to cultivating vegetables, taking care of animals and trees are dominated by men. The interesting result was that female's group responded in questions more details and neat in drawing pictures of kitchen space and home yards than male's group. The main problems of the women's group compared to men's were the lack of education, the lower skill of cultivating vegetables, and the lack of information on marketing and trainings. Finally, the issue of safety from insecticides is a problem for households where the insecticides are stored in the kitchen space, usually under the table and close to foods and children.

During the workshop in Tamil Nadu, India, a Rapid Gender Assessment was conducted to identify a strategy to better include women in sustainable technology adoption. Still many farmers are not adopting IPM technology because the technology is not available to them or not reaching all the farmers. Farmers are cultivating vegetables throughout the year, but at a small scale in order to supply vegetables

throughout the year, to get better prices and to avoid losses. Still farmers are facing constraints in acquiring knowledge. For women, time availability and mobility is the problem. Hence the strategy would be hands-on training at the village level for women, research demonstration with women, resource based IPM technology (what is available at farm), agri-based SHGs, conducting training on different IPM components, field diagnostic guide prepared and distributed, and gender awareness on pesticide residue and on safe use of agro chemicals that will be implemented in the second year. The resources and actors in the agricultural production were listed, and they will be involved in the survey for the second year. There is also possibility of using the existing form of institutions like IAMWARM and Precision farming, which are involved at field level training and monitoring for better technology adoption.

Strides were also made in Nepal where a one-day training was held with 93 participants, 66.6% women and 33.3% male. A gender survey was also conducted with 74% of respondents being female and 26% male. The GDF was used to assess gender perspectives on practices and participation, access to assets, beliefs and perceptions and laws and policies regarding IPM. In terms of practices, it was found that 89% of women use their IPM training in the field, compared to 60% of men. Furthermore, women were found to be highly involved in nursery management and weeding among the IPM package activities. According to socio-cultural factors, however, women expressed that their domestic work posed problems to women's productivity because they are in charge of these extra labors and do not have as much time to work in the field as men do (ex: men can stay outside overnight where women cannot). This extra labor also hinders women's ability to learn new information from trainings or meetings. It was found under the access dimension that men control decision making, and women do not have a lot of decision

making power in the family but do have power over smaller things which they create. For example, 96% of female respondents decide the price at which to sell their vegetables without asking their husband. Under Hindu socialization, men are valued higher than women, and society believes that men and women play different roles in society. Women are thus not perceived to be as important to agricultural development is because of patriarchal discrimination holding that daughters are born for another home and that it is only the son who continues the paternal line and cares for his house and family. Policies and official institutions are doing little to bridge this gap, when only 5.3% of women own land and an estimated 64% of women use and contribute to production on bits of land. Thus, some key findings include that both males and females have equal opportunities to earn money and access information regarding agriculture, particularly vegetable, production, but more focus needs to be placed on the actual benefits gained by males and females from these programs. Furthermore, Terai women need to be exposed to outside influences to break the obstacles caused by their culture and language. Finally, women participate in great numbers in vegetable production and rearing cattle, from which they make a high income in these sectors. However, women have fewer opportunities to give input and gain the output from marketing, so more emphasis needs to be placed on women regarding marketing practices.

In Ecuador, it was found that in general men decide where to store chemicals, how to apply them, what to apply to combat pest problems, what to purchase, and how to mix the chemicals. Thus, women are constrained because they are not as familiar with the toxicity of pesticides, the proper warnings, or the side-effects because they do not have as much direct contact with the decision-making about pesticides. In terms of trainings, fewer women attend trainings (10 women to 24 men

during INIAP training on June 23, 2010 and 46.2% of the population responding that men attend community meetings), so they are not aware of proper protection methods taught about working with chemicals. When asked about this disparity, the leader of the community responded, "Someone has to take care of the children". Thus, women are often left out of trainings because of their reproductive roles such as child care. Furthermore, their reproductive roles can be double when working in the field, as it was observed that when two parents are working in the field, the mother is in charge of working and simultaneously taking care of the children, who accompany the parents and play alongside the field, with 53.8% of participants responding that child care was a woman's job, and 0% of the population responding that child care is a man's job. Additionally, there was great variance between the upper and lower watershed regions, and women of the indigenous region are constrained from participation because they speak Quechua and translators were not always readily available.

Women have opportunities, though, in that they may not have the final say in the decision-making process, but they do seem to have a considerable amount of weight in their suggestions to men about where to store pesticides, because the arranging and cleaning of the house is overwhelmingly considered to be a female job (80.8% of respondents answering as such). Women are caretakers of children (80.8%) and the elderly (53.8%), and thus could identify more illnesses because of this role. Only one person in the community was of the opinion that pesticides were good for a person's health; so it is clear that men and women both identify pesticides are harmful to health. However, since women are the predominant care takers, if they are better informed about the health effects tied to pesticides, they can better track the frequency of illnesses and have a higher awareness about what types of chemical interactions make their family sick.

Women also are primarily in charge of cooking, at 80.8% of those surveyed, which allows them to identify different tastes and consistency of the food as it is affected by pesticides. Both of these reproductive roles can allow for dialogue between husband and wife about the best methods to use for pest management.

The Gender Regional Coordinator from East Africa, Dr. Margaret Mangheni, participated in designing and conducting a baseline survey for scotch bonnet in Mubuku irrigation scheme, Uganda. Hot Pepper (Scotch bonnet) production in Mubuku Irrigation scheme is constrained by the root rot and wilt disease. IPM is therefore implementing 3 studies aimed at testing various tactics for managing these diseases, namely, resistant varieties, optimum irrigation frequency and ridge size. A survey was conducted to collect gender disaggregated baseline information on the socio economic characteristics, production, and prevalence of insect pests and diseases affecting pepper, current pest and disease control measures, enterprise characteristics, operational constraints, and the current application level of the code of practices. The baseline survey questionnaire was developed in June 2010 with input from a multidisciplinary team of social scientists including the Gender Regional Coordinator. It was pre-tested in the field in the first week of July 2010. Data was collected in July by five enumerators assisted by the District Agricultural Officer, the Sub-county Extension officer attached to Mubuku Irrigation Scheme, and the Scheme's records officer. The data was entered and preliminary analysis done using the SPSS computer program. More in-depth analysis of the baseline data will be carried out and papers for publication written in year 2.

The GGT worked in collaboration with impact assessment and other regional programs to incorporate gender into socio-economic surveys. Sex-disaggregated data has been collected through a baseline survey in Uganda, Bangladesh and Ecuador.

A concept note of proposed HC research was not developed yet this year, except for the case of Ecuador with graduate student Megan Byrne. Nonetheless, workshops did point to opportunities and concept notes will be developed in FY 2.

The grafting studies approach has been dropped in favor of individual research based on the rapid gender assessments of each region.