

IPM CRSP Trip Report

Country Visited: Ecuador

Dates of Travel: May 30, 2010- July 2, 2010

Travelers Names and Affiliations: Megan Byrne, Graduate Research Assistant in the IPM CRSP Gender Global Theme (GGT)

Purpose of Trip: Graduate thesis research

Sites Visited: Instituto Nacional de Investigaciones Agropecuarias (INIAP) Santa Catalina Research Station, Quito; INIAP Guaranda field station, Guaranda; Ministry of Agriculture, Chillanes; Bola de Oro; Cullebrias

Description of Activities/Observations: I spent approximately 5 weeks in the community of Bola de Oro, Chillanes, working in coordination with INIAP field agents to research the practices of pesticide use, the health effects of pesticide use and the differences in how genders perceive and come in contact with pesticides. My research methodologies included one week of baseline surveys (26) given to an equal number of men and women, two weeks of participant observation (6 households) that included photo responses (6) and mapping (8) exercises, one day of focus group activities in conjunction with INIAP, one week of key informant interviews (3 doctors, 3 pesticide stores) and one week of follow up research and analysis with INIAP researchers in the Guaranda field station and Santa Catalina research station.

Some interesting observations included the lack of knowledge the community had about safety practices when working with pesticides and a lack of knowledge about the health impacts of pesticides. Furthermore, the focus of those interviewed pertaining to health related issues of pesticides seemed more concerned with the health of their children, yet brought the children to the field while they were spraying pesticides. Thus there seemed to be a low understanding of the ways in which pesticides may impact health (ie: direct ingestion, skin contact, inhaling fumes, residues in the crops used for food). In terms of gender, it was interesting to note that the survey results were in some ways contradictory to the actual practice of field work. Many respondents indicated that field tasks, such as spraying pesticides, was the job of the man, but in actuality women worked in the field about equally and also sprayed pesticides. Some women even had their own chemical sprayers. No matter the jobs the woman undertook in the field, however, in 5 of 6 households visited they were still in charge of the cooking, cleaning and caretaking of the children as well as their tasks in the field. On account of these reproductive tasks, the women were also able to identify changes in the texture and taste of their crops before and after the introduction of pesticides into their community 6 years ago. This may give them insight into the effects of pesticides that the men may not have due to the difference in gender roles. Furthermore, the women's role as caretaker of the children may give them another advantage in observing the negative health effects of pesticides.

The medical personnel interviewed made it clear that pesticide poisoning had been on the rise since the introduction of chemicals in the community, and that their patients did not have a

proper understanding of how they came to be in their condition. Information about pesticide use and handling was limited with the general hospital being the only location that had a manual about chemical intoxication and only one of four pesticide stores in the town selling full protective gear. Furthermore, the issue of water contamination was raised by one private doctor that there had not been water testing in Bola de Oro in recent memory. As some farmers do not properly dispose of the remnants of pesticides but rather dump and clean their sprayer tanks in the streams and rivers they drink out of, this may be an example of the lack of knowledge of the farmers being a reflection of a lower education level. However, it could also reflect the lack of educational materials provided by public institutions and the chemical distributors.

Additionally, it was clear that the farmers did not have a strong grasp on the amount of chemicals to use per square meter of their plots, and often over applied their chemicals. When I observed the mixture of chemicals in the field an improper amount of water was used to dilute the mixture. Very rarely were chemicals measured out and they were often combined without reading the label. Several farmers mentioned that they mainly adopt organic methods of cultivation, and only spray chemicals once or twice during a season. In two cases the person mixing the chemicals told me that they were using an organic mixture because the base ingredient was cow dung. However, they also added Cypermethrin, ranked by the EPA as a class II toxin, to their dung mixture, thus rendering it chemical. Thus, the concept and definition of what is considered “organic” and what is not by these farmers may be called into question. Furthermore, that same sprayer was used for insecticides such as Cypermethrin and herbicides like Glyphosate, thus possibly leading to damage to plants due to herbicide contamination when an insecticide is used.

Suggestions, Recommendations, and/or Follow-up Items: My thesis will attempt to delve into the above mentioned observations. This will include of literature research, a case study using the four gender dimensions framework in accordance with GGT requirements and a Master’s thesis in Public and International Affairs from Virginia Tech. There will be a particular focus regarding the health effects of pesticides, farmer training, how women may be a valuable resource to the goals of IPM CRSP and suggestions for IPM CRSP about the dynamics, knowledge level and decision-making processes of these houses as they begin to work with the community of Bola de Oro.

List of Contacts Made:

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