Trip Report: Cambodia, Vietnam, and the Philippines
3-18 January 2011

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**Purposes of Trip:**
(1) To Co-Chair the Second International Soil and Water Assessment Tool Workshop and Conference, Ho Chi Minh City, Vietnam;
(2) To visit conservation agriculture production system (CAPS) research plots in Cambodia and the Philippines;
(3) To interact with partners in Cambodia and discuss progress of CAPS treatments with farmers and scientists;
(4) To organize the soil quality workshop of Dr. Susan Andrews of the United States Department of Agriculture-Natural Resources Conservation Service;
(5) To meet with USAID-MISSIONS-Cambodia and discuss the SANREM project and its prospects of partnering with Fintrac, the company that got the HARVEST contract.

**Sites Visited:**
Vietnam: Nong Lam University and Saigon Palace Hotel, Ho Chi Minh City; and Cantho Mekong Delta, Cantho.
Cambodia: Rattanak Mondul, Batambang; Royal University of Agriculture (RUA), Ministry of Agriculture Food and Fisheries, and USAID-Mission, Phnom Penh.
Philippines: Claveria, Misamis Occidental, Mindanao, Philippines.

**Description of activities:**
**Vietnam:** January 4 and 5 the Soil and Water Assessment Tool (SWAT) Workshops were held. Three workshops were conducted: Introductory SWAT, Advanced SWAT, and MapWindow. Introductory SWAT was taught by Dr. Attachai Jintrawet, Chiang Mai University, Thailand; Dr. Nguyen Kim Loi, Nong Lam University, Vietnam; and Dr. Manuel Reyes, NCA&T, USA. Dr. Attachai and Loi were both attendees of the Introductory SWAT workshop held in the Philippines, May 2007 and funded by SANREM. Advanced SWAT was taught by Dr. Raghavan
Srinivasan, Texas A&M University, USA; and Dr. Ann van Griensven, UNESCO-IHE Institute for Water Education and MapWindow was taught by Dr. Daniel Ames, Idaho State University, USA. A total of 107 from seven countries, Vietnam, Cambodia, Thailand, USA, Germany, Netherland, and China participated in the 3 workshops. January 6 and 7 the SWAT conference was held. A total of 89 delegates from nine countries presented or attended the sessions in the conference including participants from Laos and the United Kingdom in addition to the above list of countries.

The conference had a plenary session on the first day. Part of the session was the launching of the book: ‘Vegetable Agroforestry and Cashew-Cacao Systems in Vietnam.’ This book contains results of a SANREM funded research which began in 2006 and ended in 2010. At least 35 papers on SWAT were presented. Inclusion of routines in SWAT to model agroforestry systems was discussed. A team from Germany may take this task in partnership with other SWAT scientists worldwide, especially from the SWAT team in Texas. This is a continuation of findings during the phase 3 SANREM-Southeast Asia project that highlighted the inability of SWAT to model vegetable agroforestry systems. The conference brought together several SWAT-users who applied SWAT in the Mekong River basin. This resulted in good networking that may lead to a more coherent partnership in Mekong River basin SWAT modeling. The field trip to the Mekong Delta provided an opportunity to view an excellent example of the vulnerability of the Delta to climate change. Several prospects of partnership from delegates were discussed to deal with reducing the impact of climate change in this vulnerable region of Southeast Asia.

**Cambodia:** In Cambodia, SANREM host country coordinator together with his staff and I met with several farmers both women and men and discussed progress of the CAPS research in Battambang. We visited two villages, Boribo and Pichangva. I learned that women played key positions in the farmer organizations being formed in those two villages. The discussion was conducted in Cambodian language with some English translations. The yield of corn in CAPS on 27 farmer managed plots varied from a low of 1.5 tons per hectare to a high 5.7 tons per ha. Farmers relayed their concern of the low yield they had with CAPS compared with surrounding plow based system. It was a concern that Stephane was well aware and there were three reasons why this happened. First, this is the first year of farmer managed research, and in the first year lower yields were also experienced in previous research in Kampong Cham. Second, the team found that successful CAPS in Kampong Cham, a CAPS PADAC research site which began in 2004, which was applied in Battambang does not work as well in Battambang’s different biophysical condition. Third, planting was delayed because only small machinery was used and the big machinery SANREM ordered did not arrive on time. Furthermore, some farmers admitted that there were some plowed areas that had low yield as well because of the late rains experienced last year. We visited the researcher managed and some farmer managed plots in lowland rice and upland crops. The yield and condition of each of the plots vary from good to fair for reasons explained above. Lastly, I saw the new tractor and no-till planter purchased by SANREM which can plant an average of 7 ha per day and as high as 10 ha per day. The team is optimistic that yield in year 2 will be better than year 1.
In Phnom Penh, I visited with Mr. Sophal Chuong, RUA Dean Faculty of Agriculture and Dr. Ngo Bunthan, Rector of RUA. Rector Bunthan agreed for RUA to host the Second International Conservation Conference in Southeast Asia, July 4 to 7, 2011 and the soil quality workshop to be conducted by Dr. Susan Andrews. I also visited a senior agronomy class and spoke a few minutes in the class. Stephane and I visited USAID/Cambodia Mission and met with Ms. Ronit Kirshner Gerard, Agriculture & Environment Officer and Ms. Angela Hogg, Private Enterprise Officer. We gave a briefing on SANREM-CAPS research in Cambodia. They relayed that Stephane and I will be invited to the HARVEST meeting of Fintrac, the company who will implement HARVEST with hopes of including CAPS in Fintrac’s implementation in Cambodia.

**Philippines:** A farmers’ field day was held in Claveria showcasing the CAPS research managed plots. Sixteen of 24 farmer participants who are managing research plots on their farms attended the field day. They were very optimistic about the prospects for CAPS in Claveria. Furthermore, the mayor and her key personnel of a nearby town joined us as well. We offered that one CAPS farmer managed study be done in their town. They are potential site of CAPS scaling up. About 60 participants attended the field day. Presentations on progress of experiments in Cambodia, treatments and preliminary agronomic and soil quality results, and preliminary socio-economic baseline survey results were presented. The researcher managed experiments looked very promising. There were a numerous varietal ‘kitchen’ experimental trials in the site of different species of upland rice, corn, cassava, beans, and grass and legume cover crops with three replications. In addition, there were five CAPS being tested and being compared with plow based system under a randomized complete block design with four replications. Time ran out to visit farmer managed studies. Several recommendations from Stephane Boulakia were applied in the Philippine research approach.

**Suggestions and Recommendations:** An excellent synergistic partnership has grown between researchers in Cambodia and the Philippines. Also the USAID/Cambodia Mission has been very supportive of SANREM work with the team is hopeful that CAPS will contribute to the HARVEST project.
Training Activities Conducted:

<table>
<thead>
<tr>
<th>Program type (workshop, seminar, field day, short course, etc.)</th>
<th>Date</th>
<th>Audience</th>
<th>Number of Participants</th>
<th>Training Provider (US university, host country institution, etc.)</th>
<th>Training Objective</th>
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<tbody>
<tr>
<td>Workshop</td>
<td>January 4 to 5, 2011</td>
<td>Students, faculty, and scientists worldwide, especially in Southeast Asia</td>
<td>62 49</td>
<td>North Carolina A&amp;T State University, Texas A&amp;M, Idaho State University, USA Chiang Mai University, Nong Lam University, UNESCO-IHE Institute for Water Education</td>
<td>To introduce the SWAT model and provide Advanced SWAT training to those who attended introductory SWAT during previous SANREM sponsored SWAT sponsored workshops. To introduce MapWindow GIS software in Southeast Asia.</td>
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<tr>
<td>Conference</td>
<td>January 6 to 7, 2011</td>
<td>Students, faculty, and scientists worldwide, especially in Southeast Asia</td>
<td>69 20</td>
<td>North Carolina A&amp;T State University, Texas A&amp;M, Idaho State University, Iowa State University, USA Chiang Mai University, Thailand Nong Lam University, Vietnam</td>
<td>To share recent findings about the SWAT model and know recent advancements in SWAT.</td>
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<tr>
<td>Mekong Delta Field Trip</td>
<td>January 8, 2011</td>
<td>Scientists, students, and faculty worldwide, especially in Southeast Asia</td>
<td>13 7</td>
<td>North Carolina A&amp;T State University, Can Tho University, Vietnam Nong Lam University, Vietnam</td>
<td>To observe the hydraulic structures installed to manage Mekong water for agriculture and witness the vulnerability of the Mekong Delta to climate change.</td>
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<td>Field day</td>
<td>January 18, 2011</td>
<td>Farmers, local government units, faculty and scientists</td>
<td>35 35</td>
<td>North Carolina A&amp;T State University, ICRAF-The World Agroforestry Center University of the Philippines at Los Baños Misamis Oriental State College of Agriculture and Technology</td>
<td>To share preliminary results of CAPS research in Claveria, including the researcher managed study and the CAPS implemented in study plots. To hear participating farmers responses about CAPS farmer managed trials.</td>
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List of Contacts Made:

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<th>Name</th>
<th>Title/Organization</th>
<th>Contact Info (address, phone, email)</th>
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<tbody>
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