The purpose of my trip are to participate on the Annual Workshop of USAID IPMCRSP Regional Project for Southeast Asia and International Symposium on Biodiversity and Integrated Pest Management.

Tuesday, July 2, 2013: Annual Workshop Day 1

The meeting started with the opening remarks and inspirational message from Mike Hammig of Clemson, Dan Sembel of Sam Ratulangi University, Mike Bertelsen, Donald Tambunan of USAID-Indonesia, and Muni Muniappan, who then introduced members of the IPM Innovation Lab Advisory Board.

Dr Hammig, the program leader for SE Asia program gave an introduction to the workshop and presented an overview of the SE Asia regional project. Hammig also mentioned that the next annual meeting will be in the Philippines.

Dong Arida presented a remembrance of Hermie Rapusas, who had been in the IPM CRSP at PhilRice since 1994.

Muni Muniappan presented an overview of the IPM Innovation Lab and its history, and highlighting success stories from the program.

The activities of the Indonesian IPM Innovation Lab team from Sumatera, West Java, East Java and Indonesian Vegetable Research Center, North Sulawesi, Bali and Indonesian Cocoa and Research Institute were also reviewed and presented their plans for the next year.

Wednesday, July 3, 2013: Annual Workshop Day 2

Mike Hammig also reviewed the work in the Philippines, University of the Philippines, Los Banos, and PhilRice in Muñoz, Nueva Ecija. The activities in Pnom Penh Cambodia were also reviewed.

The second part of the morning session included presentations on the global themes activities in South east Asia like Gender Knowledge and Application and Plant Virus Diseases and Diagnostics.

A question and answer sessions and suggestions to each project were made after each project presentation.

John Bowman from USAID gave a presentation on “The Future of the IPM Innovation Lab. He mentioned that USAID wants their programs to show impact and that Horticulture is one of the highest priorities.
The closing remarks and presentations of certificates to the participants were made by Eric Benson of Clemson.

The planning meeting was adjourned at 1:00 pm

**Thursday, July 4: Biodiversity conference, Day 1**
First day of the *Biodiversity and Integrated Pest Management: Working Together for a Sustainable Future* conference.

The opening session began at 9:00. Merle Shepard, Datje Sembel and Muni Muniappan gave the welcome remarks. Muni Muniappan gave a presentation on IPM IL activities and success stories.

The rector of Sam Ratulangi University, Dan Rumokoy, Guru Ghosh, John Bowman, Donald Tambunan of USAID/Jakarta, Dr. Haryono of the Indonesian Ministry of Agriculture, and the governor of North Sulawesi, Sinyo Harry Sarundajang delivered a short message.

The presentations of scientific papers started at 10:30 till 3pm. There was an open forum or discussion on the paper presented after presentation.

**Friday, July 5: Biodiversity conference, Day 2**
Continuation of the presentation of scientific papers

Here are some of my impressions on the papers presented.

1. The data presented on paper screening peanut accessions for resistance to bacterial wilt is purely under natural infestation in the field. Those rated resistant should be confirmed under greenhouse condition by artificial inoculation of the pure culture isolates of *Ralstonia solanacearum*. I totally disagree that there will be higher bacterial wilt infection in plots where bacterial wilt infected plants were rogue than plots where infected plants were remained wilted in the field. There will be more inoculum/source of infection if you will allow the infected remained in the field.
2. The research on the development of IPM package for summer tomato production in Bangladesh was very impressive. Grafting of commercial tomato hybrid to wild eggplant *Solanum sisymbriofolium* markedly reduced bacterial wilt infection and at the same time generated higher yield in field with high incidence of bacterial wilt.
3. The information on the paper risk-minimizing argument for traditional crop varietal diversity use to reduce pest and disease damage in agricultural ecosystem is very realistic. This practice will really reduce the incidence of insect pest damages and the disease incidence. The more diversified your crop is the lesser pest problems.
4. The computer vision for disease identification is entirely new approach in the identification of the disease. However it is inaccurate to identify the disease based on symptoms alone. The conclusion on the identification of the disease must always be supported by the presence of pathogen associated with the infected tissue.
5. On the mass production, formulation, shelf life and application of Trichoderma for plant disease management, it is not enough to know that the of Trichoderma is alive for several months. It must be tested whether the organism is still effective in controlling the disease because the organism losses its aggressiveness if not handled properly.
6. I learned that mealybugs is a serious pest problem of cassava in South East Asia. The report that this pest is not yet observed in the Philippines should be confirmed.

**Saturday, July 6: Field Trip to Rurukan and Tomohon**

This is a whole day field trip to agricultural sites in Rurukan and Toure. We met farmers who are using IPM technologies. We also visited the farmer cooperatives headed by Mr. Paila. We had lunch at the farmers cooperative.

The farms planted with crucifers such as cabbage were visited. The plots treated parasitoid and organic compost in the management of insect pests on cabbage were shown. Similarly, the use of lime and plant growth regulator were demonstrated in managing club root disease on cabbage.

**Sunday, July 7: Left Manado, going back to the Philippines**

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