

## **REPORT ON A VISIT TO THAILAND TO REVIEW SRI PROGRESS, July 18-20, 2007 – Norman Uphoff**

To complete a three-week visit to Asia after meeting with SRI colleagues in Japan, Vietnam and Cambodia (reported on in separate trip reports), I arrived in Bangkok from Phnom Penh on July 18. **Dr. Prabhat Kumar**, research specialist in Agricultural Systems and Engineering in the School of Environmental Resources and Development at the Asian Institute of Technology (AIT), met me at the airport and took me to the campus of AIT north of Bangkok where I would be based for the next two and a half days.

Kumar, working together with **Abha Mishra** and her PhD advisor **Dr. V.M. Salokhe**, has been introducing and evaluating SRI in Roi-et Province since April 2006. This work is supported by a grant from the CGIAR's Challenge Program on Water and Food (CPWF) on 'Increasing Water Use Efficiency by Using Mulch under SRI Management Practices in NE Thailand,' for which Dr. Salokhe is principal investigator (PI). Kumar, an alumnus of AIT (M.S. '95) with a subsequent Ph.D. in entomology from University of Hannover in Germany, has worked for a number of years with FAO's programme on Integrated Pest Management (IPM) in several Asian countries. A first report is posted at <http://ciifad.cornell.edu/sri/countries/thailand/thabhaCPF06.pdf> and a more recent report is at <http://ciifad.cornell.edu/sri/countries/thailand/thcpfwrpt1007.pdf>. A video clip on the SRI work is posted at: <http://www.youtube.com/watch?v=b31LgNMu-hg>

In the evening I had dinner with Kumar, Abha and two AIT faculty members, **Dr. S. L. Ranamuckaraachi** and **Dr. Ganesh Sivakoti**, with whom I worked previously on irrigation management issues. The dinner provided opportunity to discuss various aspects and issues of SRI that go beyond the experiments Abha has done on rice plant root and shoot growth under controlled conditions in AIT greenhouses, as well as the participatory action research she has been doing with farmer field school (FFS) groups in Prey Veng Province of Cambodia.

### **Thursday, July 19**

Kumar and Abha had arranged for a public lecture on SRI at AIT in the morning at 10 o'clock. About 75 students, faculty and professionals from other organizations were there for my presentation on SRI worldwide, followed by a presentation by Abha from her research findings. **Dr. Mongkol Dandhanin**, who had been a teaching assistant for my graduate course at Cornell 25 years ago and who has recently retired as a professor of agricultural extension at Khon Kaen University in the northeast, was there, as was **Dr. Sawaeng Ruaysoongnern** from the Khon Kaen's Department of Land Resource and Environment. Sawaeng and I had met previously at an EcoAgriculture conference in Kenya in 2004. I was pleased to meet also **Lakchair Menakanit**, formerly head of the IPM program in Thailand and now a consultant for DANIDA.

Much interest and good questions were articulated following our presentations. About 25 persons went together to lunch in the AIT Conference Center, where I talked particularly with another AIT faculty member, **Dr. H. P. Jayasuriya**, who works on agricultural mechanization. We discussed the possibilities for mechanizing some of the most labor-intensive aspects of SRI. The best candidates are mechanical transplanting of young seedlings, or direct-seeding to replace transplanting altogether, and weeding with a 2-wheel tractor equipped with a suitable implement.

In the afternoon at 3, Kumar, Abha and I met with the President of AIT, **Prof. Said Irandooust**, for about an hour. He was very interested in the work that Kumar, Abha and Dr. Salokhe have been doing in NE Thailand, and liked to see AIT faculty, staff and students involved in this kind of direct engagement with communities. We discussed how AIT faculty, staff and students could get more involved in SRI work. This could be a big addition to the SRI efforts in Thailand.

### **Friday, July 20**

In the morning, Kumar and I went to the **Rice Department** in the Ministry of Agriculture, meeting its director **Chanpithiya Shimphalee**. It was helpful that his superior had heard my presentation on SRI at a meeting of FAO's International Rice Commission in Chiclayo, Peru, in May 2006, and that this superior had reported favorably about SRI upon his return. Most important, Kumar was able to provide specific and impressive data from the work that has been doing in Roi-et Province, which reinforced my more general comments about SRI results.

The meeting lasted an hour and a half, and already by Monday morning, Chanpithiya had set the wheels in motion for his department to begin SRI trials this season in Chacheongsao Province, with departmental funding. Kumar was also able to offer some supplementary support from the funds remaining in the CPWF grant, which can also assist some support activities of Mongkul and Sawaeng in Roi-et Province.

The human resource and programmatic base for SRI work in Thailand is getting broader than before. Kumar and Abha have been in communication with **Klaus Prinz** of the McKean Rehabilitation Center in Chiangmai, who has served informally as a volunteer coordinator for SRI activities in Thailand since 2002, working with **Dr. Phrek Gypmantsiri**, head of Chiangmai University's Multiple Cropping Center, who was the first person to try SRI methods in Thailand. Neither could join us for discussions in Bangkok, but both have links with a number of Thai NGOs and other organizations. They have convened two meetings of SRI stakeholders, first one in 2003 (<http://ciifad.cornell.edu/sri/countries/thailand/thairepjn03.pdf>) and then one again in 2005 (<http://ciifad.cornell.edu/sri/countries/thailand/thmccmtng205.pdf>).

In the afternoon, I spent an hour and a half with two AIT faculty members, **Dr. Bernadette (Babette) Resurreccion**, coordinator for Gender and Development Studies, and **Dr. Edsel Sajor**, professor in the School of Environment, Resources and Development, both originally from Philippines. They have been engaged by Oxfam America to do an impact analysis of SRI in Cambodia with special attention to gender aspects. Our previous assessment of this have been informal and unsystematic, although all of our queries have indicated favorable impacts. It will be good to have a systematic and professional evaluation done soon on this subject.

In the evening, I had dinner with Abha, Kumar and their daughters at their flat on the AIT campus. A major topic of discussion was their planned move back to India as Abha and Kumar have been offered faculty positions at Rajendra Agricultural University near Patna in the state of Bihar. (This was formerly known as the Indian Agricultural Research Institute at Pusa.) This is in their home state and near to their families. Finding two permanent faculty positions at the same university is very difficult, more so in India than in the U.S., where special efforts are made to accommodate spouses. Both passed separate, rigorous appointment processes to get their offers.

Abha and Kumar are reluctant to leave the SRI work that they have gotten started in Thailand, which is proceeding so well. But they see great opportunities and need for dissemination of SRI in Bihar, with which I fully agree. Mongkol and Sawaeng, whose university (Khon Kaen) is near Roi-et Province, have expressed willingness to play a role with the SRI activity in the Northeast that has gotten started with CPWF support. Their involvement will expand the base of personal involvement with SRI. If both Khon Kaen and AIT universities can become more engaged – and there is now more faculty and student interest at AIT – along with Chiangmai University, which was the first institution to work on SRI evaluation, this gives a solid base within academia in Thailand. Government participation can come through the Rice Department, and a number of NGOs are involved with SRI through the informal network that has been started some years ago.

Thanks to the initiative of Phrek, Thailand was one of the first countries in the region to try out SRI. But the results were not as impressive as in Cambodia and Myanmar, and less momentum was generated than in neighboring countries. Klaus and Phrek did what they could from their base at Chiangmai in the far north, but little overall impact has been possible. There was a long and laudatory feature article on SRI published in the *Bangkok Post*, 14 September 2004.

A Thai agronomy student who did her PhD at Cornell in crop and soil sciences, Thanwalee Sooksa-nguan (nicknamed GiGi), did her thesis research in Chiangmai on SRI soil biology. She found that when rice paddies were not kept continuously flooded, root-feeding nematodes could become a serious problem, reducing crop yield. This could explain, at least partly, why SRI methods have not raised yields much in Thailand, or even lowered them in some places. In some locations, however, there have been 50-100% improvements, and in Roi-ed Province, SRI performance has been very good, indeed encouraging.

So, there is much to be learned about SRI in Thailand, and probably many adaptations will be made, such as altering the usual SRI water management practice of keeping soil mostly aerobic to have a long enough period of flooding with alternate wetting and drying (AWD) that parasitic nematodes are suppressed. Such adjustments should be possible to devise and disseminate so that the basic productivity gains of SRI methodology can be captured by farmers in Thailand. As noted above, the human resource and institutional resource bases for SRI work are moving toward some threshold that should enable SRI efforts to become more locally defined and more locally owned, as has been occurring in Thailand's neighboring countries in Southeast Asia.