

**2009 Colloquium for UF AKI Project**

**U.S. India Agricultural Knowledge Initiative**

Sustainable Water Resource Management: U.S - India Collaborative Research and Education

January 26, 2009, 12:00 – 5:00 PM

Terrace Room, Norman Hall, University of Florida

**Introduction:** The 2009 Colloquium brought together 24 and student researchers together (see list of participants), to share three AKI related projects progress in research and capacity building activities, and to collaboratively plan for future activities and synergies. The presentations and discussion are listed below of discussions are outlined below.

**Presentations: State of the UF AKI Projects**

- Sustainable Water Resource Management : US – India Collaborative Research and Education – PI, **Dr. Wendy Graham**
- [Information and Communication Technologies for Capacity Building in Water Management: U.S. India Collaborative Extension/Outreach and Distance Education –](#) PI, **Dr. Ramesh Reddy** (*presented by co-PI Dr. Sabine Grunwald*)
- [Integrating gender and social issues in watershed management projects of the Indo-US Agricultural Knowledge Initiative \(AKI\):A pilot study, in collaboration with International Crops Research Institute for the Semi-Arid Tropics \(ICRISAT\) –](#) PI, **Dr. Dorota Haman**

**Collaborative Research Updates**

- **Kuljinder Deol** “[Water Balance of Rice under Different Management Scenarios in the Indian Punjab Region](#) (site Ludhiana India)”
- **Ashok Kumar** “[Interactive Effects of Drainage Period and Nitrogen Levels on Crop Productivity, Water and Nitrogen Balance.](#)” Research Farm, Punjab agricultural University Ludhiana.
- **Arun Jain:** “[Evaluation of constructed wetland effectiveness for improving agricultural water quality in Ujjina village, Mewat district, Haryana, India](#)”
- **Dakshina Murthy** “[Irrigation & Fertilizer affects on Productivity, Water Use and N Balance in Rice & Maize Cropping Systems in Telangana Region, India.](#)”
- **Daniel Dourte:** “[Cropping Systems for Food and Water Security in India: Productivity and Groundwater Responses to Farm Management Research site: Kothakunta Subwatershed, Wargal Mandal, Medak district, Andhra Pradesh, India.](#)”
- **Todd LeVasseur** “Modeling the Humanities: 5 weeks of Watering Boundaries (and a lifetime of fruitful conundrums)”

## **“Project and Collaborative Research Planning”**

Discussion was based on the following five questions:

- What is different because UF is involved?
- What are the opportunities (and barriers) for cross-project collaboration?
- Is there sufficient funding for field research?
- What are the major problems being encountered?
- How can we better share plans and data?
- What is the best way to invest remaining AKI funds to support USDA and UF investment?
- Will students complete coursework before doing field work in India?

Results and Actions discussed during the session:

- 1. All UF Students are planning to be in INDIA this summer (2009). This was identified as important to all (PAU, ANGRAU, and IARI)**

**Discussion:** Communication with Indian partners is sometimes difficult. Experiments are running right now at ANGRAU and PAU and students need to should get be there ASAP to participate and help plan future work. Mesocosm wetland treatment experiments are being planned at IARI and UF students, engineering technicians and faculty need to help design and instrument these experiments. There is pressure to get the experiments underway from the Indian side because they have budget now and the project may end after this year. All 4 AKI students plan to go back during summer B (i.e. after July 1). All students except Kuljinder Deol plan to stay for a full year. Kuljinder will go for a few months in 2009 and then again for a few months in 2010. Students will be able to take some courses as distance education when they are in India. We should meet as a large group at least once before July to plan cross-project linkages and follow progress. Smaller groups should meet with Indian partners via phone/skype as necessary to keep individual projects on track.

- 2. UF Advisor traveling together with the student to India at the beginning of their field work is more critical than bringing Indian advisors to UF at this point.**

**Discussion:** The possibility of have a workshop in Gainesville with Indian faculty, UF faculty and students present during the last week of April or first week in May was discussed. However given budget constraints it was felt that it might more cost effective and better for the success of the students' research for the UF faculty and students to travel to the field sites in India. A joint meeting in Delhi in July with all 3 Indian universities might be possible, followed by travel by individual groups to their field sites. It is important for each group to spend time at their field site so everyone can understand what experiments are being conducted now and what future experiments are needed.

**Action:**

- Explore conducting electronic meeting via Polycom or other media: video conference with people in India in April before planting season and/or before they leave for India in early July.
- Explore potential to coordinate with other related workshops/trainings in both US and India that are tentatively planned (Gender workshop at UF planned for late Spring early summer, RLO workshop at ICRISAT planned for May)
- AKI students and their 4 major UF professors will plan to visit India beginning July 2009. Students should send their plans of study as well as travel plans to Omaira asap. Omaira will consolidate the information and circulate for reference by all. The possibility of a joint meeting in Delhi will be explored after preliminary travel plans are shared.

### **3. Need to establish a protocol for improved communication and data sharing in all research projects**

**Discussion:** Students and Faculty need access both to data already collected by agencies or university personnel in India and to new data collected from collaborative AKI experiments. The time the students will spend in India will be critical for collecting data and setting up methods for data sharing and communication (e.g. project web sites, ftp sets, data storage protocols etc). Some experiments, ie. N-15 experiments will happen at both PAU and ANGRAU so communication regarding how to purchase required materials and analyze samples will be very important.

**Action:** Students together with both UF and Indian faculty need to design data sharing and communication protocols to help with individual student research projects and cross-project collaboration.

### **4. Potential to hold a Model Training Workshop in India**

**Discussion:** An important outcome of our AKI projects could be a series of model training workshops. Jim Jones and Ken Boote have already been asked to conduct DSSAT trainings in India. It may also be useful for the faculty at NCA&T to provide a SWAT training workshop. We could possibly host these workshops at ICRISAT and charge a registration fee to help defray expenses. It was noted that Rao Mylavarapu and Jim Jawitz may be doing a workshop at ICRISAT in August and we could possibly coordinate with that one. Sabine and Ramesh are also planning a capacity building workshop in May but that may be too early. Perhaps the best timing would be summer 2010.

**Action:** Ramesh and Wendy will contact the folks at NCA&T to see if they would be willing to help pay for a modeling workshop in India using NCA&T funds and conduct the SWAT training (Manuel Reyes). Jim Jones should be kept in the loop since he would be conducting the DSSAT workshop

### **5. Need to continue UF AKI Team coordination and information flow**

**Discussion: Important to maintain group communication particularly as experiments and trips to India are planned this spring .** The students will plan monthly meetings around themes of interest to them. Meetings will be announced to all faculty and students. Several potential themes were suggested (experimental plans, models, up-scaling, social and gender analysis...). Water Institute will plan a large group meeting at least once before the students leave for India

**Action:**

- Daniel Dourte will take the lead on planning the monthly meetings. Define themes for meeting: Students group meeting coordinate by Daniel
- WI will set up a listserv for the AKI group.
- WI will compile report and put presentations on Website. Potential for FTP file for data sharing.
- WI will put an events calendar on the website as well.

Currently we know the following, please send updates and corrections to Omaira:

April 2009
<ul style="list-style-type: none"><li>• Social equity issues writing workshop (visit from ICRISAT) at UF (Lisette Staal, Dorota Haman)</li></ul>
May 2009:
<ul style="list-style-type: none"><li>• RLO workshop at ICRISAT (Sabine Grunwald/Ramesh Reddy)</li><li>• AKI electronic workshop</li></ul>
July 2009
<ul style="list-style-type: none"><li>• 4 AKI students and their advisors to India</li></ul>
August 2009
<ul style="list-style-type: none"><li>• Mylavarpu short course at ICRISAT</li></ul>
September 2009
<ul style="list-style-type: none"><li>• Ramesh and Sammons to ICRISAT : (Sammons will be there for 7-10 days, dates to be confirmed later)</li></ul>
May 2010:
<ul style="list-style-type: none"><li>• Daniel to India</li></ul>
Summer 2010:
<ul style="list-style-type: none"><li>• Possible DSSAT/SWAT Model training</li></ul>

## Appendix A – Agenda

### Colloquium for UF AKI Project

#### U.S. India Agricultural Knowledge Initiative

Sustainable Water Resource Management: U.S - India Collaborative Research and Education

January 26, 2009, 12:00 – 5:00 PM

Terrace Room, Norman Hall, University of Florida

The 2009 Colloquium will bring faculty and student researchers together, to catch up on AKI related projects progress, share research activities, and plan for future activities and synergies. The cohort of graduate students will focus on issues associated with three watersheds in India, using lessons learned from comparable issues and watersheds in the US. Each student will conduct individual research within his/her own interest area, but which contributes to goals of the overall program.

#### 12:00 – 1:00 LUNCH –

12:00 – 12:30 Lunch with slide show (compiled by Rao Mylavarapu)

12:30 – 1:00 introductions and colloquium agenda (Lisette Staal)

#### 1:00 – 1:30 State of the UF AKI Projects

- Sustainable Water Resource Management : US – India Collaborative Research and Education – PI, **Dr. Wendy Graham**
- Information and Communication Technologies for Capacity Building in Water Management: U.S. India Collaborative Extension/Outreach and Distance Education – PI, **Dr. Ramesh Reddy** (*presented by co-PI Dr. Sabine Grunwald*)
- Integrating gender and social issues in watershed management projects of the Indo-US Agricultural Knowledge Initiative (AKI):A pilot study, in collaboration with International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) – PI, **Dr. Dorota Haman**

#### 1:30 – 4:00 Collaborative Research Updates

1:30 – 1:35 Introduction (Lisette Staal)

1:35 – 1:50 **Kuljinder Deol** “Water Balance of Rice under Different Management Scenarios in the Indian Punjab Region (site Ludhiana India)”

1:50 – 2:05 **Ashok Garg** “Interactive Effects of Drainage Period and Nitrogen Levels on Crop Productivity, Water and Nitrogen Balance.”  
Research Farm, Punjab agricultural University Ludhiana.

2:05 – 2:20 **Arun Jain**: “Evaluation of constructed wetland effectiveness for improving agricultural water quality in Ujjina village, Mewat district, Haryana, India”

- 2:20 - 2:35** **Dakshina Murthy** “Irrigation & Fertilizer affects on Productivity, Water Use and N Balance in Rice & Maize Cropping Systems in Telangana Region, India.”
- 2:35 – 2:50** **Daniel Dourte:** “Cropping Systems for Food and Water Security in India: Productivity and Groundwater Responses to Farm Management Research site: Kothakunta Subwatershed, Wargal Mandal, Medak district, Andhra Pradesh, India.”
- 2:50-3:05** **Todd LeVasseur** “Modeling the Humanities: 5 weeks of Watering Boundaries (and a lifetime of fruitful conundrums)”
- 3:05 – 3:20** **BREAK**
- 3:20 – 4:00** Open Discussion of Research
- 4:00 – 5:00** **Wendy Graham** “Project and Collaborative Research Planning –, Issues, opportunities for integration, future funding needs, next steps

## **Appendix B**

### **LIST OF PARTICIPANTS**

#### **UF WATER INSTITUTE**

Wendy Graham, Director  
Lisette Staal, Research Coordinator  
Omaira Bolanos, Intern

#### **AKI PROJECT FACULTY**

Wendy Graham, Agricultural and Biological Engineering  
Sabine Grunwald, Soil and Water Science  
Dorota Haman, Agricultural and Biological Engineering  
James W. Jawitz, Soil and Water Science  
Jim W. Jones, Agricultural and Biological Engineering  
Jasmeet Judge, Agricultural and Biological Engineering  
Yuncong Li, Soil and Water Science  
Rao Mylavarapu, Soil and Water Science  
K. Ramesh Reddy, Soil and Water Science  
Whitney Sanford, Department of Religion  
Sanjay Shukla, Agricultural and Biological Engineering

#### **GRADUATE STUDENTS**

Kuljinder Deol  
Daniel Dourte  
Ashok Kumar  
Arun Jain  
Todd LeVasseuer  
Dakshina Murthy  
Kiara Winans  
Camilo Cornejo

#### **IFAS INTERNATIONAL PROGRAMS**

David Sammons, Director  
Walter Bowen, Associate Director