

Trip Report  
Scott N. Miller  
January 21 - February 4, 2003

SUMAWA-CRSP Project, Kenya

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This international trip report refers to a project visit to Kenya by Scott N. Miller, Lead PI of the SUMAWA-CRSP research program to multiple institutions in Kenya.

Purpose of the visit: There were 5 principle goals of this visit:

1. Meet with all members of the research team and become updated on research progress
2. Update the management and budget structure of the program
3. Review team composition and make changes as necessary
4. Facilitate research interaction among the various collaborators
5. Plan the next phase of research

Definitions of Terms:

In this report I will use the following terminology:

*Lead PI (US):* Dr. Scott Miller

*Kenya PI:* Dr. William Shivoga

*Kenya co-PI's – also the same as Component Leaders:* Dr. Francis Lelo, Dr. Charles Maina-Gichaba, Dr. Mucai Muchiri

*Project components:* Watershed hydrology, ecology, stakeholder involvement, socio-economics

*Project manager:* Zakayo Akula

*Project financial officer:* Barbie Allen

*Kenya institutions:* Egerton University, Moi University, Fisheries Department of Kenya, Kenya Wildlife Service.

*Local partners:* Rockefeller library at Egerton University, Kenya Agricultural Research Institute

Overview of the Travel Schedule

**Jan 21:** depart Laramie

**Jan 23:** arrive Kenya, travel to Egerton University

1 pm: Meet with Kenya PI, co-PI's

3 pm: Tour SUMAWA & Egerton facilities

**Jan 24: (Egerton University)**

9 am: Meet with Kenya PI, co-PI's, Frank Lusenaka

1 pm: Introduction to Egerton graduate students (7; all MS candidates post-classwork)

**Jan 25:**

Saturday: informal get-together with Shivoga and family

**Jan 26: (Egerton → Nairobi)**

2 pm: Meeting with Tag Demment, Susan Johnson, Barbie Allen

***Jan 27: (Nairobi → Egerton University)***

9 am: Meeting with Tag, Susan, Shivoga, Lelo

3 pm: Meeting with Tag, Susan, Shivoga, Lelo, Gichaba, Aboud

4 pm: Meeting with all Team Members (From ME: Demment, Johnson, Akula; From Egerton: Allen, Shivoga, Lelo, Gichaba, Oboweyere; Lusenaka, Cheruiyot, Churi, Ngoda, Inoti; From Moi: Muchiri; From Fisheries: Monor; From KWS: Ndeti, Kuloba, Ann ... head warden on Park)

5 pm: Meeting with Prof. Shaukat Abdulrazak, Deputy Vice Chancellor for Research and Extension of Egerton University.

***Jan 28: (Egerton → Eldoret)***

8 am: Meeting with Tag, Barbie, Shivoga, Jimmy Osborne of Friends of Mau Watershed

9 am: Meeting with Susan Johnson and all Team Members (see list from previous day) to review US-AID guidelines for travel, purchasing.

2 pm: Travel to Eldoret for visit to Moi University

***Jan 29: (Eldoret – Moi University → Egerton)***

9 am: Meeting with Moi team members and representatives of the financial office (From ME: Johnson, Akula; From Egerton: Shivoga; From Moi: Muchiri, Odanga; From Moi finances: Chumba, Limo)

11 am: Liti arrives; visit with Principal of Chepkorio campus (From ME: Johnson, Akula; From Egerton: Shivoga; From Moi: Muchiri; Principal Name Missing)

12 N: Field trip to Moi University experimental fish ponds

2 pm: Travel to main Moi campus; discussion with Muchiri in his role as Ecology Component leader

3 pm: Meeting with Prof. Cuda, Moi U. Deputy Vice Chancellor for Planning and Development, standing in for DVC-Research and Extension (From ME: Johnson, Akula; From Egerton: Shivoga; From Moi: Muchiri, Liti)

5 pm: Return travel to Egerton U.

8 pm: Meeting with Johnson, Akula to review financial and management implementation strategies

***Jan 30: (Egerton)***

8 am: Meeting with Egerton team Leaders, Akula, Lusenaka

10 am: Meeting with Gichaba, Johnson, Akula

12 N: Meeting with Akula, Susan, Lelo, Gichaba, Lusenaka

2 pm: Susan and Akula depart for Nairobi

4 pm: Meeting with Shivoga for review

***Jan 31:***

8 am: Meeting with Prof. Mumera, Director of Rockefeller Library at Egerton U. to discuss shared high-speed internet line

9 am: Meeting with Gichaba, Watershed Hydrology Component Leader

11 am: Meeting with Monor, Fisheries Department

11:30: Travel KenStream office in Nakuru for exploration of high-speed internet service (Shivoga, Monor, Mumera)

12 N: Meeting at Fisheries Department in Nakuru to review collaboration (Monor, Shivoga)

***Feb 1:***

8 am: Field Trip to upper watershed for training on field practices, use of digital camera, GPS. (7 graduate students, Shivoga)

3 pm: Travel to KWS, Lake Nakuru National Park to review collaboration (Ndetei, Kuloba, Shivoga)

***Feb 2:***

8 am: Classroom exercise transforming GPS into GIS (7 graduate students, Shivoga)

11 am: Meeting with Dr, Onyando, a watershed modeler in the Engineering department

***Feb 3: (Egerton → Nairobi)***

9 am: Meeting with Egerton co-PI's

1 pm: Depart for Nairobi

5 pm: Meeting with Barbie Allen

6 pm: Phone meeting with Akula to review changes and short-term planning

11 pm: Plane departure from Nairobi

***Feb 4:*** Arrive Laramie

Discussion of Results

The SUMAWA-CRSP project has just completed the first quarter of the assessment phase, which is defined as Sept 1, 2002 – Sept 30, 2003. Due to complications in the contract arrangements, the first release of funds did not occur until late December, 2002. This delay in the flow of funds has disrupted the sequence of work laid out in the work plan and scope of work. Importantly, relatively little equipment has been purchased aside from the small items I purchased for the Moi and Egerton University teams while attending the GL-CRSP conference during the Fall. However, a significant proportion of project deliverables scheduled for the 1<sup>st</sup> quarter have been completed.

**Part 1: management and budget**

The first phase of this visit was dedicated to updating the management and budget structure of the project. Numerous accounting errors were identified by Susan Johnson of the GL-CRSP for the period covering February – August, 2002. During that time, the Kenyan scientists were operating without a US Lead PI and had not instituted proper accounting practices following US-AID guidelines. Thus, the bookkeeping and reports related to this period of time necessitated a review by the GL-CRSP ME and a presentation of the regulations governing the use and distribution of project funds. I felt that, while this accounting period was prior to the official commencement of project activities, I should attend this review and become familiarized with the issues at hand so as to ensure that adequate changes are adopted by Kenyan scientists.

Prior to the arrival of the ME (Tag Demment and Susan Johnson), I met with the Kenyan PI and co-PIs to review the status of the research and discuss strengths and weaknesses of the team. Several deliverables for the 1<sup>st</sup> quarter were discussed, many of which have been completed. However, all 4 research components and the capacity building module are lagging somewhat behind as a function of the delays in getting the project budget and research structure in place. A short review of the accounting and project management practices was held, but discussion was minimal in anticipation of the ME's visit. Some concerns relating to the overall size of the project team and contributions of the individual team members were discussed. The Kenya team was very forthright about the need to restructure the project team, improve the research capabilities in specific areas (socio- and agricultural economics, soil science) and reduce the size of the Egerton component.

A series of meetings was held with the ME and team members regarding the structure of the team and fiscal accountability. All team members, including the collaborators from Egerton, Moi, Fisheries, and KWS were in attendance. Tag was very direct in delivering a speech regarding the vision of scientific research envisioned by the ME, focusing on the alignment of goals, purposes, activities, personnel, and budget. This presentation and following discussion provided an avenue for re-aligning the project and streamlining the budget. These issues are sensitive to the host country scientists, and it is apparent that the team leaders are highly interested and motivated in making changes to the team, but are stymied by the structure and culture of the University.

The DVC for research and extension at Egerton was very receptive to the proposed scope of work and offered flexibility for the faculty involved. Also important was that he gave his approval for installing Akula as an outside contractor within the University grounds and for allowing him and his family housing on the campus. This is significant since Akula will not be employed by the University but will be stationed at the SUMAWA-CRSP project office in the CMRT at Egerton.

Upon Tag and Barbie's return to Nairobi, Susan Johnson remained with Akula to straighten out the books and close the books on all activities prior to September, 2002. During this phase of the trip we traveled to Moi University to meet with the financial office managers to make arrangements for the manner in which money would be transferred from Wyoming to Moi. We also met with the Principal of the satellite campus near Eldoret and the DVC for planning at the main campus. Both these individuals offered their support for the project, and the financial arrangements are judged to be very sound. They have strong checks in place and appearances indicate that they have implemented important changes to streamline their requisition process and allow the individual faculty members control over their research accounts (including mandatory signatory status for Dr. Muchiri).

#### *Updates to the financial and budget arrangements*

1. Effective Feb. 1, Akula will be brought onto the project as project manager. Responsibilities include oversight on all purchases, requisition of materials,

- reporting to Wyoming and US-AID, approval of travel and reimbursement, scheduling of travel, maintenance of equipment, and accounting.
2. Flow of funds will operate through Akula for all collaborating institutions. Money will be sent from Wyoming to the account managed by Barbie in Nairobi. Ms. Allen will be responsible for purchasing large items (equipment) on invoice. The remainder of the monies for stationary and salary will flow through University accounts with mandatory signatory status for project PIs. KWS and Fisheries will receive their shares directly from Akula to avoid the inevitable red tape and delays associated with operating accounts in the Kenya Government.
  3. Component leaders are responsible for assigning task items to their team members. In this way, direct accountability for production will be introduced and salaries will be tied to the delivery of those products. This is a modified “pay for play” system and replaces the more laissez faire structure adopted in the early phases of the project.
  4. Per diems will be paid on the US-AID schedule. This replaces the University “field salary” structure that has been in place where scientists were paid on the basis of being “away from their station” and was a significant portion of the travel budget.
  5. During the assessment phase it is expected that the team will be shuffled and slimmed to remove duplication of effort. Additional members may be brought on to provide expertise but the goal is to make a more direct connection between the project goals, tasks necessary to achieve those goals, and the personnel.
    - i. I have removed Bernard Ngoda from the team effective Feb 1.
  6. The Moi and Fisheries partners will be more directly facilitated in their research efforts with funds previously allotted to the Egerton team. The funds will flow as research needs emerge and should not be viewed as fixed in place as per the current budget.
  7. Several new accounts will be established to process the funds:
    - a. Egerton: DVC-RE will establish a new account for SUMAWA-CRSP with Shivoga as mandatory signatory. This account will receive all salary and office management budget items as well as the 10% overhead.
    - b. Moi: project funds will go into a Department account with Muchiri as mandatory signatory. All funds except for major purchase items will go into this account
    - c. Fisheries: Akula will process funds directly to Monor and/or Nancy Gitonga as stipulated in the subcontract. *Note: some additional funds may be necessary to support Macheriot (sp?) if he returns to student status.*
    - d. KWS: Akula will process funds as needed to facilitate Kuloba’s and Ndetei’s participation as representatives of KWS following a MOU to be established.
  8. MOU’s among the Kenya institutions will be finalized to ensure collaborations proceed smoothly.

## **Phase 2: Collaborative Efforts Among Institutions**

**Background:** This project was originated by Dr. Shivoga of Egerton University, who presented a small project to the GL-CRSP ME, who recognized the need for a larger, multi-disciplinary effort to focus on integrated watershed systems. In the context of the larger watershed integration it became clear that a fisheries or aquaculture component would add a great deal of strength to satisfying the long-term project objectives of establishing sustainable watershed management and providing a model for multidisciplinary research in the region. Towards that end, the PDA-CRSP has contributed both funds and expertise in the establishment of the assessment project. However, it was perceived by the new research partners (Moi Univ., Fisheries Dep't) that scientists at Egerton were not fully cooperative in supporting the collaborations called for in the research proposal. Throughout the 1<sup>st</sup> quarter efforts were made, and some successes demonstrated, to more completely tie the different institutions together, but there is clearly room for improvement.

Both the principal of the Chepkorio campus and the DVC for planning and development expressed their full support for the project. The principal expressed a willingness to provide flexibility to the Moi faculty and both the principal and DVC were very supportive of the addition of Akula as project manager. The DVC has a strong background in research science and is interested in establishing a long-term strategy for building multi-disciplinary research capabilities. The DVC-RE at Egerton likewise demonstrated support for building relations with other institutions. At a minimum, there is good will for improving relations and the respective bureaucracies are aware of the project goals and have verbalized support. The team members and project PIs have the opportunity to build on this goodwill and we need to establish momentum and build the collaboration.

My opinion is that some of the perceptions of Egerton's lack of cooperation have a basis in reality, but that some more fundamental problems in communication and inefficient mechanisms for collaboration were partly responsible. I felt that this trip offered an opportunity to re-align the research collaboration, reduce the communication difficulties, and create short- and long-term integrated projects to tie the various institutions together in a manner fundamental to the spirit of the project.

A series of meetings was held with the Kenya PI's to discuss this matter, during which time the need for full and open collaboration was freely discussed, as well as the option to alter the budget to facilitate these changes. The Egerton group, especially Shivoga, voiced strong support for improvements. Shivoga in particular should be commended on his collaborative efforts, as he has brought on several Moi faculty and encouraged their participation in the Ecology component for which he had initial responsibility. In addition, I met independently and in groups with the Moi and Fisheries researchers to determine their needs and research goals. Some innovative and exciting collaborative efforts were put forth for immediate implementation.

*Updates to the collaboration arrangements*

1. The budget will not drive the collaboration. Heavy emphasis has been placed on the distribution of “\$10,000 each” to Fisheries and Moi Univ. This strong voice of PDA/CRSP to ensure that the institutions were funded at this minimal level was useful in that it formed a basis for the interaction among the institutions. However, it also generated somewhat of a perception that the budget was relatively fixed in those amounts. During this trip it was made clear that these numbers represented a baseline for support, but that additional funds should be distributed according to the research needs, and that the source of support would be Egerton’s subgrant.
2. Dr. Muchiri of Moi University was elevated during the 1<sup>st</sup> quarter to Component Leader of the Ecology team. It was decided that he should assume the role of co-PI. This change will provide him with additional authority on budget, planning, and long-term research strategy. It should be noted that this was an independent suggestion put forth by the Egerton PI and co-PI’s.
3. Moi faculty will support 2 MS students in addition to the 7 at Egerton. This is an addition to the Moi funding support. Agreements will be put in place to have shared supervision of the students between faculty of the two Universities (they already have mechanisms for joint supervision in place). Thus, students will pursue the research and gain support from faculty wherever they reside.
4. Efforts will be made to grant Godfrey Monor of the Fisheries Department adjunct faculty status at Egerton University so that he can serve on student committees. Specifically, he has a staff member who would be offered joint support through his office if he were to return to graduate school. If so, the project will jointly support him/her and allow Monor to direct the research.
5. An experimental fish pond study will be established that will link Egerton, Moi, and Fisheries. In addition, this project will serve as a demonstration site for stakeholder outreach and attempt to clearly demonstrate economic benefits of integrated aquaculture and livestock. This project is intended to commence in February. A short description follows:
  - a. A suitable site has been located on the Egerton campus – clay soils, abundant water supply, etc. Several fish ponds with supporting infrastructure will be established under joint supervision of Moi and Fisheries. Locals will be trained in the construction of the ponds. Moi faculty will design experiments using the new facility, and Fisheries will generate outreach between the local community and the scientists. The area is relatively large and suitable for grazing; livestock will be located on-site and the waste used to provide nutrients for the ponds.
  - b. Research responsibilities will be as follows:
    - i. Moi faculty will provide technical expertise and provide plans for the ponds suitable with their research objectives.
    - ii. Fisheries Dep’t will organize local help and oversee their construction, as well as generate additional outreach programs concerning aquaculture and the economic benefits.
    - iii. Egerton faculty will facilitate the project and deal with bureaucratic red tape, etc. Faculty will also be responsible for the livestock component and providing security for the site.

6. Communication: All members of the collaborating institutions share responsibility for failed communications at some level. Moi, Fisheries, and KWS researchers have been primarily passive in this regard, relying strictly on a flow of information from Egerton. They express frustration when the flow appears to be slow, but they could improve their efforts to open communication and initiate contact from their side. Importantly, there have been clear oversights in communication from Egerton to the collaborators, which must be eliminated to foster interaction. However, it is abundantly clear that there are numerous barriers to the free and open flow of information (cost, infrastructure failures being the most frequent disruptors), and that all parties need to be proactive and establish open lines of dialogue. We have a significant portion of the budget devoted to communication, and scientists have been repeatedly urged to use all forms available to interact. The project has implemented numerous improvements to reduce the infrastructure problems, including adding an office phone with an outside line and placing an internet node in the SUMAWA office. We have raised the possibility of upgrading the facilities at the Fisheries Dep't in a cost-sharing agreement as well. Hopefully these changes and the improved atmosphere of cooperation will lead to a more direct exchange of ideas among the partners.

### **Trip Summary**

The 5 major objectives of this trip were successfully completed. Of critical importance to the success of this project were the following: implementing a streamlined and accountable project management and budgeting system in accordance with USAID guidelines, regenerating and improving the collaborative efforts among the Kenyan institutions, and refocusing the project on the deliverables and research tasks. In reviewing the SUMAWA project, it is important to keep in mind that it marks a significant departure from the typical CRSP program in several notable ways: first, it is a Kenya-driven project with a high degree of responsibility assumed by host country participants; second, it is jointly funded by two CRSPs with different research and development directives; third, there is a great deal of reliance on the integration of numerous US and Kenyan institutions. It is my impression that this visit and the participation of the GL-CRSP ME was highly opportune and provided an opportunity to "clear the decks" regarding the relatively rough beginning of this assessment phase, install important mechanisms to improve the efficiency of the research scientists (specifically by reducing their responsibilities related to reporting, purchasing, budgeting, scheduling, etc.) and ensure that the team members are free to direct their attention to their research.