



PD/A CRSP EIGHTEENTH ANNUAL TECHNICAL REPORT

REGIONAL OUTREACH IN AFRICA

*Ninth Work Plan, Adoption/Diffusion Research 5 (9ADR5)
Progress Report*

Karen L. Veverica
Department of Fisheries and Allied Aquacultures
Auburn University
Auburn, Alabama, USA

Bethuel Omolo
Sagana Fish Farm
Sagana, Kenya

James R. Bowman
Department of Fisheries and Wildlife
Oregon State University
Corvallis, Oregon, USA

ABSTRACT

The intent of the Kenya Project's regional outreach activity is to promote contact and communication among aquaculture research and extension personnel and organizations throughout the region. This is to be achieved mainly through participation at regional meetings, not only by presenting papers but also through participation in planning and organizing the meetings. It is hoped that such participation will help promote the dissemination of information emanating from PD/A CRSP research, help conference participants learn about fish culture practices and research priorities and activities in Kenya and in neighboring countries, and encourage the establishment of linkages among research and extension programs in the region. During the current reporting year Sagana Fish Farm and the CRSP hosted a meeting of the Aquaculture Committee of the Lake Victoria Environmental Management Programme. The Kenya Project sponsored travel to several workshops and conferences, including a two-week study tour on agro-aquaculture in Malawi for then-Sagana Head of Station B. Omolo; attendance at the LV2000 conference in Jinja, Uganda, for K. Veverica, J. Ngatuni (current Head of Station at Sagana), K. Kahareri, R. Mbaluka, and E. Were; and attendance at the IIFET 2000 conference "Microbehavior and Macroresults" by M. Muchiri, Head of the Department of Fisheries at Moi University, Eldoret, Kenya, and a collaborator on several CRSP Kenya Project activities. Graduate student B. Meso presented information on the first season of the study "Use of Pond Effluents for Irrigation in an Integrated Crop/Aquaculture System" at the 25th Conference and Silver Jubilee of the Soil Science Society of East Africa, in Kampala, Uganda, and was awarded the prize for academic excellence and diversity in soil science at the university post-graduate level for his presentation. As it has for several years, the CRSP supported the participation of the Kenya Fisheries Department and Sagana Fish Farm in the Agriculture Society of Kenya's annual "Nairobi Show." Although the Fisheries Society of Africa (FISA) did not hold any conferences this year, Veverica continues to maintain contact with officers of that organization, which is headquartered in Nairobi.

INTRODUCTION

The intent of this activity is to promote contact and communication among aquaculture research and extension personnel and organizations throughout the region. This is to be achieved mainly through participation at regional meetings, not only by presenting papers but also through participation in planning and organizing the meetings and in helping to develop and implement plans to increase participation in them. Through this effort, research results from current and previous CRSP activities can be shared, other African researchers can be met and encouraged, CRSP workers can learn about research and extension efforts in other parts of the region, and linkages for future collaboration can be established. Examples of regional meetings that might be included are annual meetings of the Southern Africa Development Community (SADC) Inland Fisheries Sector Technical Coordination Unit and the Fisheries Society of Africa (FISA), but other meeting opportunities will also be taken advantage of.

The objectives specifically listed for this effort in our work plan were:

- 1) To promote the dissemination of information emanating from PD/A CRSP research results;
- 2) To learn about fish culture practices and research priorities and activities in Kenya and neighboring countries in Africa; and
- 3) To encourage the establishment of regional linkages between research and extension programs in Africa.

This activity continues from a similar activity in the Eighth Work Plan.

THIS YEAR'S ACTIVITIES

In mid-1999, P.O.J. Bwathondi of the Lake Victoria Environmental Management Programme (LVEMP) asked to hold a meeting of the Aquaculture Committee of the LVEMP at Sagana so they could benefit from CRSP experiences and

enhance our collaboration. K. Veverica and B. Omolo responded by organizing and leading a workshop at Sagana from 17–21 December 1999. Participants came from Tanzania, Uganda, and Kenya. LVEMP provided travel costs for some participants while the CRSP helped with organization and leadership of the workshop as well as provision of training materials, including the CRSPs *Dynamics of Pond Aquaculture* (Egna and Boyd, 1997) and *Pond Fertilization* (Knud-Hansen, 1998) books. Copies of some of the more relevant CRSP *Research Reports* and *Notices of Publication* and Sagana *Fact Sheets* (extension bulletins) were also given to interested participants. Veverica has interacted with LVEMP personnel for some time, and it is expected that this collaboration will continue. The LVEMP-CRSP linkage was greatly strengthened by this seminar. It was concluded that Sagana Fish Farm, in conjunction with the CRSP, would train the lab technicians working in the three LVEMP countries in water quality analyses.

Omolo attended a two-week study tour on agro-aquaculture in Malawi in November 1999 where he gave a presentation on *Aquaculture Development in Kenya*. This study tour was sponsored by the Technical Centre for Agricultural and Rural Co-operation (CTA) and organized by D. Jamu of ICLARM-Malawi. Jamu now collaborates with the CRSP Kenya Project as Principal Investigator for studies conducted in Malawi under our Companion Site activity (9ADR4).

LV2000, a conference on the Lake Victoria Basin originally scheduled to be held in Jinja, Uganda, 23–26 November 1999, was actually held from 14–19 May 2000. Veverica traveled with J. Ngatuni (Head of Station, Sagana Fish Farm), K. Kahareri, R. Mbaluka, and E. Were to attend the conference and to visit two Ugandan fish stations and a number of rural ponds. Veverica made a presentation addressing the business/economics aspects of aquaculture production in Central Kenya entitled “Commercial Tilapia Production Recommendations and Enterprise Budgets of East Africa in the Absence of Formulated Feeds.” Although Lake Victoria fisheries management issues were the major theme of the conference, Veverica’s presentation was very well received by conference attendees, who said that the business development perspective is just what is needed for aquaculture to develop further in the Lake Victoria basin. During this visit, an NGO working in wetlands development asked for help in training in fish farming. A training plan was developed and the organization is seeking funds to have Sagana station staff train 140 farmers.

M. Muchiri, Head of the Department of Fisheries at Moi University, Eldoret, Kenya, and a collaborator on several CRSP activities in Kenya, attended the IIFET 2000 conference “Micro-behavior and Macroresults,” held at Oregon State University in Corvallis, Oregon, 10–14 July 2000. Muchiri gave a presentation entitled *Break-Even Price And Investment Costs Under Different Loan Schemes For Small-Scale Fish Farmers In Kenya* at one of the several aquaculture sessions of the conference. Muchiri was able to meet and confer with fisheries and aquaculture professionals from several other African countries while at the conference. He stayed over in Corvallis for a few days following the conference, and was able to meet with several members of the Department of Fisheries and Wildlife and of the Office of International Research and Development to explore possibilities for linkages

and for future exchanges of faculty and/or students between the universities. Prior to his departure from Corvallis, Muchiri and J. Bowman visited East Lake, in Central Oregon, to learn about a population dynamics study that was begun there this year. Following his time in Oregon, Muchiri traveled to Auburn University, Alabama, to learn about the aquaculture and fisheries programs there. There he again explored possibilities for future inter-institutional collaboration and faculty and student exchanges, leading to the drafting of an MOU between Moi University and Auburn University.

Graduate student B. Meso presented information on the first season of the study “Use of Pond Effluents for Irrigation in an Integrated Crop/Aquaculture System” (9ER1) at the 25th Conference and Silver Jubilee of the Soil Science Society of East Africa, held in Kampala, 6–10 September. He was awarded the prize for academic excellence and diversity in soil science at the university post-graduate level for his presentation.

The Agriculture Society of Kenya held its annual Nairobi Show from 27 September to 2 October 1999. The show is similar to a US county fair, with 230 stands and attendance of up to 100,000 visitors per day. Sagana Fish Farm and the Fisheries Department contributed to the stand for the Ministry of Natural Resources. Veverica and Omolo arranged for a pet store ornamental fish dealer to loan a 10-foot aquarium to display aquaculture species, including tilapia, *Clarias*, and carp. Sagana also donated fish for the Ministry of Agriculture’s display. *Clarias* filets were donated by Sagana to be served in the fish preparation demonstration. The Ministry of Agriculture won second place, and the Ministry of Natural Resources took third place for government stands. Sagana’s Social Development Officer J. Amadiva worked at the stand and answered questions for three days, followed by S. Njau, who covered another three days.

Although the Fisheries Society of Africa (FISA) has not sponsored any conferences during this period, Veverica has maintained contact with officers of that organization, which is headquartered in Nairobi.

ANTICIPATED BENEFITS

Contact with researchers and extension personnel in Kenya and in other countries in the region will result in a better understanding of research needs and enhanced research-extension linkages. Extension services in Kenya and other African countries will benefit by being more closely linked with research institutions, and African researchers will have an enhanced understanding of research needs. Ultimately, fish producers throughout the region will benefit because these linkages will enable extension services not only to more easily convey farmers’ needs to researchers but also to extend new research results back to the farmers.

LITERATURE CITED

- Egna, H.S. and C.E. Boyd (Editors), 1997. *Dynamics of Pond Aquaculture*. CRC Press, Boca Raton, Louisiana, 437 pp.
 Knud-Hansen, C.F., 1998. *Pond Fertilization: Ecological Approach and Practical Applications*. PD/A CRSP, Oregon State University, Corvallis, Oregon, USA, 125 pp.