

RCE AFRICA –REPORT

July 2009 TO June 2010

Charles C. Ngugi, RCE coordinator

Introduction

The AquaFish CRSP Strategy for Achieving Development Impact in sub-Saharan Africa focuses on Research, capacity building, information dissemination, through but not limited to the Presidential Initiative to End Hunger in Africa (IEHA) launched in 2002. The six countries currently included in IEHA are Kenya, Ghana, Mali, Mozambique, Uganda and Zambia. Focal areas cut across, improving nutrition and health, maximizing water, soil quality and productivity, broadening market access, increasing incomes, and improving food quality, processing, and safety. The initiative focuses on promoting Aquaculture growth and building an African-led partnership to cut hunger and poverty by investing in small-scale fish farmers.

Presently Aquafish CRSP is focused on complementary themes in different IEHA countries as shown in:

- Kenya –Focus is now on marketing and impact assessment for cage culture in small water bodies
- Tanzania – Fish Production and technology transfer
- Ghana – Fish feed, water quality, environmental impact assessment for cage culture on Lake Volta and marketing
- Mali – Aquatic Resource use and conservation for sustainable freshwater aquaculture and fisheries. This is a leader with associate award project.
- Uganda -Hydrology, Water Harvesting, and Watershed Management for Food Security, Income, and Health: Small Impoundments for Aquaculture and Other Community Uses

RCE Responsibility

The Regional Centers of Excellence (RCE) continued to perform its role in building community among all CRSP participants; identify potential additional partnerships with the

public and private sector, NGOs, USAID, and others; and bridging the knowledge gap from local-regional perspectives to global development outcomes.

Dissemination Strategy

RCE targeted 4 general audiences for its dissemination strategy, each requiring different levels of investment and approaches for effective communication.

RCE has facilitated Networking with global scientists interested in African aquaculture through SARNISSA, WAS, NEPAD and ANAF meetings and conferences.

Specific approaches included:

- Personal contacts/relationships;
- HC PI networking in each respective countries;
- Aquafish match making;
- Collaborative research and institutional linkship.

Assessment of opportunities and gaps in technology

Technology transfer is frequently more efficient if end-users can see firsthand the results of novel technologies and management strategies. In its simplest form, a technology gap is where the motivation of innovators and consumers are out of synch. Resulting from this, the consumer adoption of technology lags availability of innovations. Through Collaborative research in Aquaculture, CRSP has endeavoured to work with all stakeholders in Africa. In the region, aquaculture has been promoted through interrelated programmes in education, training research and outreach. In recognition of the need for technical skills in the region, there has been a major support to education at all levels.

Capacity building

CRSP has brought new technologies to rural communities and helped build support structure for aquaculture extension. Farmers adopting CRSP technologies and management practices designed for their local conditions in Ghana, Kenya, Mali, Uganda and Tanzania have already begun to

experience dramatic fish yield increase. In Kenya for example production has more than doubled from 1, 100 MT in 2006 to 4,500 metric tons reported in 2007 and will continue to rise with projection estimated at 7,500 metric tons in 2009 report. In Mali production per unit are has risen from 1,500 metric tons to over 6,500 metric tons per hectare per year.

CRSP AquaFish participants used on-farm trials wherever possible to expedite the adoption of results and technologies. RCE office advanced research and extension technologies and practices in Kenya, Mali, Uganda, Ghana and Tanzania whose impacts have been reported in Aquafish technical reports, peer review journals, students dissertations and theses. RCE facilitated regional Networking by, developing posters in English and French for Malians under the Mali Associate Award, developing a fish farmers' manual in English, developing aquaculture fact sheets and teaching modules, Facilitating information exchange and proposal writing.

RCE has also been instrumental in setting up forward working interpretations to facilitate various aquaculture tasks in the region particularly with regards to ANAF as special programmes for Aquaculture development in Africa – Aquafish funded and supported the setting up of the ANAF regional office in Jinja. RCE has also been a key player of ANAF by attending and participating in ANAF annual meetings. Most recent was the meeting that was held in Jinja Uganda in June 2010.

Gender inclusivity

RCE has made every effort to address gender integration within the planned scope of work. Projects must include a procedure for monitoring and evaluating gender integration in all Aquafish projects in Africa. We anticipate that some activities will focus solely upon gender-related issues in the context of aquaculture and fisheries development. Nevertheless, team members have considered the effects of specific activities on gender and ensure that any possible negative effects are mitigated. We have also made deliberate attempts to promote the participation of women in formal and informal education and training opportunities provided through the AquaFish CRSP. We have endeavored to include equal numbers of men and women within all AquaFish CRSP activities. Within the present Aquaculture CRSP, more than 40% of the students educated through formal training opportunities are women; two graduate students in

Kenya are both women. This number represents a trend moving towards greater gender equity in recent years as access to a pool of talented women in developing countries is becoming deeper. In addition, women scientists and administrators will be encouraged to participate in all our projects.

Charles and I attended an ANAF meeting with John Moehl in Jinja at the beginning of July - which was planned to discuss and see whether SARNISSA and ANAF could merge into one overall network . As you know there have been a nos of African aquaculture, fisheries, policy level etc networks set up over the last 3-5 yrs with some progressing further than others in terms of impacts and results – whilst there has also been a certain level of replication in what each was trying to achieve . With SARNISSA EC funding finishing in Feb 2011 we also have been feeling the important need to go out and look for funding to continue the network but also to look more at developing other potential income earning streams within a modified sarnissa infrastructure. As such I had been having discussions with John Moehl since inviting him and Sloans Chimatiro to our sarnissa annual meeting in Malawi in Feb 2010 where the idea of a merger was first broached – Anyway after fairly lively discussions at the Jinja meeting we came to an agreement that we (ANAF and SARNISSA) should try to merge into one overall network - During the negotiations on this we both agreed that SARNISSA should keep its own identity and brand - with - in terms of IT, information sharing, the websites, the discussion fora – the cross over between Fr and Eng speaking SSA aquaculture etc SARNISSA would retain all of these roles - Whilst ANAF would work more within a policy level role – as it had done in the past – whilst also going on to develop a training education based programme addressing the greatest perceived needs within SSA development - eg fish farm management – training African fish farm managers, developing univ and college curricula in order to give students more of the skills reqd for working in commercial or sustainable aquaculture – rather than going on to work for the govt in research or administration, and in the same vein developing on farm internship programmes, and finally identifying and strengthening in SSA context “Centres of Excellence” for specific areas eg genetics hatchery reproduction, nutrition , aquatic animal health etc .

I don't want to write too much here however I think you can see the way in which this was framed – Once agreed on this process the next step will be to set up an MOU and we (UOS) would also recommend an independent Advisory Board to oversee the development and direction of such a merged entity – Speaking for myself I would welcome it if you would be able to sit on such a board. From there we would then be looking forward to putting a joint proposal through NEPAD to the African Union for funding to develop such a phase two. Talking confidentially in terms of SARNISSA other than not wanting to be in competition with other networks or replicating what some were also trying to do - we also felt that within Africa this was the best way of applying for funding to continue SARNISSA even though in a revised format. We (SARNISSA partners) still are cautious of such a merger in terms of not wishing to become involved in more political agenda's related to ANAF, FAO and the circles they are often working in, becoming bogged down by institutional bureaucracies and constraints – and would not wish this to constrict or even alter the freedom (of speech) and wide individual membership base (now 1500) we have developed over the years. In terms of writing and then agreeing on such a proposal we would of course also welcome funding from other sources to continue SARNISSA or even one constituent part of it – If we can obtain such separate funding then this will very much help our case and that of the joint network with the AU and NEPAD – in showing we can obtain matched funding.

Hillary - I hope that clarifies the position we are now in in terms of SARNISSA's future. Just to add from Sept 2009 I began writing and communicating with other potential donors about the future for sarnissa including NORAD, GTZ, CGIAR and in fact EC etc and whilst I was met with initial interest none were willing to offer funding outside of specific calls – which was a pity and quite ironic really since many of their staff are SARNISSA members!

Without wanting to blow our own trumpet the partners within sarnissa are pleased and accepting of what has been achieved over the last two years – we can still do much more – and in retrospect and analyses put this down to essentially having very clear and specific objectives – and associated activities – right from the proposal stage of the project – clearly knowing what we wanted to do - We wished to create an information sharing network with materials and information relevant to African users , a community of individual members (not insts) from a wide stakeholder base , and then to encourage and bring about sharing and potential collaborations between the different members towards positive change in African aquaculture. I think and hope this has provided individuals with something they need and can actually benefit from. I think these initial clear plans have stood us in good stead and I think have differentiated what we are doing compared to the more meetings/conference based approach of other networks which in my humble opinion have had limited impact or results.

Unfortunately Im not in Ghana or Mali on the dates mentioned - I will actually be in Ghana towards the end of Sept 25th onwards - after attending the CAMFA African Fisheries Ministers meeting in Banjul Gambia where we will be presenting the findings from our SARNISSA Policy WP5 as well as further promoting the overall benefits of SARNISSA to the participants. Perhaps it would be easier to talk over Skype ? My skype name is willhelm1 . Please let me know when would be a good time for you - I will also ask Dave to join us.

In the meantime in Uganda it was also nice to meet and spend time with one of your CRSP colleagues Joe Molnar - and also I must say I was very impressed with the Walimi FF Co-op in Kampala – I spent a day in their office – mainly letting them know details of SARNISSA – but also whilst there I enjoyed watching FFs coming in and out of the office and being helped and supported by the staff there – arranging to buy feed, buying and selling fingerlings, buying and selling food fish, etc. Lovein - the lady there who was the main contact in the office – was very impressive in the way she spoke and dealt with them - It was great and v encouraging to me at last over many yrs to see a FF Assoc in SSA which was actually providing a service and actually helping and supporting its own members. I know Karen and other CRSP members were involved with developing this assoc – and also their annual FF symposium in Kampala. Having heard about WAFICOS before we (SARNISSA) have actually been writing a case study on the assoc which hopefully is coming out soon after editing – and will be a nice addition to our list of CS's - but also more importantly be read by other Africans who may wish to start or develop their own associations to learn from it .

Hope this was helpful and look forward to speaking to you soon

Best wishes

Will

Host Country decision makers, researchers, educators and extension agents

Host Country decision makers were engaged so that aquaculture and fisheries policies would incorporate relevant research findings (see file attached). We were delighted to receive invitations to participate in local stakeholder meetings (see mail attached). AquaFish CRSP Regional Centers of Excellence, provided input on research directions while also accessing up-to-date information on research and outreach activities from government agencies and other stakeholders (see ANAF meeting, in Jinja Uganda, and stake holder Eworkshop photos in Kenya).

These linkages were to:

1. provide technical advice on emerging issues and gaps from a regional perspectives
2. develop useful materials for missions and other regional stakeholders and end users
3. gauge opportunities for further collaboration based on regional and national needs

Within this period, RCE helped host country PIs establish linkages with, USaid country Missions, (such as in Ghana, Mali, Uganda and Kenya), FAO mission and region offices, NEPAD/COMESA, ANAF, and SARNISSA among other stakeholders.

1. RCE have made every effort to source leverage funds from USAID mission, EU, CIDA, DFID, and Government Ministries among others in support of aquaculture development for the region. Currently there are FAO/ TCP aquaculture projects going on in Uganda, Kenya and Ghana. Most recent undertaking has been the FAO support in Ghana. The “Aquaculture Investments for Poverty Reduction in the Volta Basin: Creating Opportunities for Low-Income African Fish Farmers through Improved Management of Tilapia Genetic Resources – Regional Project GCP/RAF/417/SPA”. The USaid funding in Uganda, World Fish Center funding in Malawi, NEPAD/Comesa project at Bunda College in Malawi, Leader with associate award in Mali, EU-SARNISSA funding for Cameroon, Malawi and Kenya, DFID Aquashop projects in Kenya among a host of other projects in the region.

Linkages and Collaboration

- In addition to the large number of Aquafish Family, RCE has through SARNISSA established contacts with over 1,400 stakeholders who are enrolled members of SARNISSA. Through this initiative, member countries have received invitations for meeting, conferences and scholarship support from institutions such as the Asian Institute of Technology in Thailand.
- Through an earlier collaboration with Purdue University, successfully submitted two project proposals and have received funding that will include support for two graduate students as well as run one on-farm trial for fish farmers.
- The SARNISSA Project continues to foster collaboration among scientist and currently supports one Kenyatta University undergraduate student.

The RCE office is proud to announce that the Africa team several papers at the World Aquaculture Conference a few are listed below with their titles:

- Charles Ngugi and Kwamena Quagraine 2010. Efficient Pond Design Strategies for a Variety of Environments. World Aquaculture Conference, San Diego, California 1-5 March 2010. Oral Presentation.
- Judith Amadiva and **Charles Ngugi** 2010. Marketing farmed fish in Kenya: Opportunities and Challenges. World Aquaculture Conference, San Diego, California 1-5 March 2010. Oral Presentation.
- Maria Celia Portella, Hillary Egna, James Bowman, Remedios Bolivar, Wilfrido Contreras, Laurens De Wet, Khalid Salie **Charles Ngugi** and Nguyen Thanh Phuong 2010. Transferring Cichlid Culture Technologies to Brazil: Yang Yi's Legacy. World Aquaculture Conference, San Diego, California 1-5 March 2010. Oral Presentation.
- James Bowman, Lisa Reifke, Hery Coulibaly, **Charles Ngugi**, Yang Yi, Liping Liu, Nancy Gitonga, Peter Nzungi and Hillary Egna 2010. Towards the Development of Sustainable freshwater Aquaculture and Fisheries Management Practices in Mali:

Collaborative work under the Aquafish CRSP. World Aquaculture Conference, San Diego, California 1-5 March 2010. Poster Presentation.

The Kenya Farmers Helpline

Recently, a donor funded extensive research study was carried out aimed at establishing the availability of information sources for Small Holder Farmers (SHFs) in Kenya and how the information is accessed. Findings from the study show that the farmers have a range of sources but which are not readily available and not always dependable. As a result of these findings, KenCall leveraged its technical and customer service management expertise to launch the revolutionary Kenya Farmers' Helpline – Huduma Kwa Wakulima, a unique and innovative service that aims to provide agricultural and horticultural information, advice and support over the phone to small holder farmers who are living on or around the subsistence level.

KenCall is a new concept in Kenya. It is the largest contact center operating globally and providing call center and Business Process Outsourcing (BPO) services to organizations worldwide. KenCall offers unrivalled experience in customer care, telesales, technical support, customer acquisition, web chat services and BPO. Its business is built upon world-class technology infrastructure and operations.

Other Developed Proposals submitted for Research and Leverage:

- Kenya, South Africa linked with Brazil and wrote a proposal in August 2008. Funds for this project have been release and activities have begun. RCE coordinator has been invited to give a key note address at the annual aquaculture conference in Brazil
- Research-into-Use Programme- Call for 'Best Bets' Concept Notes: Agricultural Development in East and Central Africa. We have received funding for a pilot project on Setting up Aquashop in western Kenya (see the attached file).
- Basic Research to facilitate Expansion of Aquaculture in Developing (BREAD) regions of Brazil and Kenya using indigenous and local resources – NSF –Gates foundation
- ASARECA - Enhancing fish farmer – led enterprise for sustainable productivity and

livelihoods in East Africa – that was not funded

Contacts in Ghana, Kenya, Mali, Uganda and Tanzania

We have established links and contacts with senior government officers in these countries

- In Ghana, We are working with FAO Africa Representative John Moehl on information exchange.
- In Kenya we are in close collaboration with The Ministry of Fisheries Development and have been invited to several meetings to discuss the Aquaculture stimulus programme and the Aquaculture development plan
- In Tanzania, the Assistant Director of Fisheries member of ANAF attended the meeting in Jinja and I linked him to FAO and SARNISSA
- In Uganda we have established linkage with Kajanssi Research centre and the Uganda Commissioner for Fisheries who attended the ANAF meeting in Jinja.

USAID Mission

USAID personnel Kenya and Mali were informed of the option to receive AquaFish CRSP publications, including *Aquanews*, Annual Administrative and Technical Reports, manuals, fact sheets, etc. to keep the Mission properly informed of AquaFish CRSP activities. The AquaFish USAID personnel were also invited to participate in planning and assessment meetings to remain completely informed of progress and constraints facing the Project.

MEETING REPORT: ON 15TH APRIL 2010 AT USAID-KENYA OFFICES, NAIROBI, KENYA

Present:

Mr. Phares Ratego, USAID-KENYA

Prof. Charles Ngugi, AQUAFISH CRSP

Mrs. Nancy Gitonga, AU-IBAR

AU-IBAR and Fisheries

Mrs. N. Gitonga gave a brief summary of the reason for the meeting, which was basically to establish collaboration mechanisms with USAID to expedite aquaculture development in Africa.

The Strategic Partnership for Sustainable Investment Fund (SPFIF) project is housed by AU-IBAR, which is an AUC regional office that deals with annual resources issues in Africa. The SPFIF project development included elaborate stakeholders' consultation process. As a partnership initiative the SPFIF is designed to facilitate sustainable fisheries management in the large marine ecosystems. The project through the RAC Secretariat thus endeavors to forge collaborators and partnerships with institutions and programmes and therefore the main reason for this meeting is to discuss on fisheries areas for collaboration between AU and USAID.

It is important to note that the AU has very little information on donor funded projects that occur in Africa because the reporting of the projects' progress and outcomes is direct to donors. This needs to change and the process can be expedited through development of a collaboration mechanism, coordinated by AUC.

Aquaculture development in Africa

It is important to develop synergies in aquaculture and therefore due to the role Aquaculture CRSP has played in the continent, through USAID funding, AU envisaged that there is need for projects' coordination and information sharing. Fortunately, the Regional Centre of Excellence (RCE) initiative created by Aquafish CRSP provides a very good avenue for aquaculture networks and information sharing. Prof. Ngugi of Kenyatta University is the coordinator of RCE in East and Southern African region.

There has been concern that the USAID country offices do not appear to be aware of the USAID – USA funded projects. This meeting seeks to discuss ways to change this so that African Union can play a more coordinating and central role in aquaculture projects. In this regard, the RCE would play a catalytic role on aquaculture information dissemination.

Aquafish CRSP and RCE

Prof. Ngugi gave a brief report on the Aquaculture CRSP regional projects that he is involved in and his role as a RCE co-coordinator. He reported that there are 3 RCEs; one is SE Asia, one in Africa and another in Latin America. The idea of RCEs is to provide a network mechanism for dissemination of Aquafish CRSP regional aquaculture with a view of influencing governments and collaborators to leverage and replicate the CRSP outputs in order to expedite the sub-sector growth.

On Aquafish projects that he is currently involved in, there is collaboration with countries' Fisheries Departments and projects were reviewed by USAID – Kenya as required, but beyond that there has been no more contact with USAID. The current projects include:

- Pond cage farming for the Tilapia in Western and Central Kenya.
- Value chain development for tilapia and catfish development: opportunities for women participation.

Some information was given on the ongoing Economic Stimulus Package where Kenya government is giving 1.1 billion Kenya Shillings for aquaculture development. It is a good step forward towards development of aquaculture for government of Kenya to recognize sub-sector and give it so much prominence as one of the areas that can expedite economic development. This development is based on the confidence that the sub-sector can perform well with proper inputs and marketing systems. This confidence in aquaculture can be traced back to the involvement of Aquaculture CRSP in Africa, where it laid foundation for small scale fish farming development through technology transfer and capacity building for both government extension officials and stakeholders (farmers) themselves.

The Kenyan Aquaculture Economic Stimulus Package includes the following:

- Construction of 200 ponds in each of 140 constituencies, each costing KES 25,000
- Stocking of ponds from 27 identified and certified fingerling producers. Each pond costing KES 3,000 (+ KES 2,000 for transportation)
- The total money given to farmers per pond by government is therefore KES 40,000.

The success of this Aquaculture Economic Stimulus Package will boost fish farming in the continent through lesson learning.

USAID-Kenya

Mr. Phares Ratego gave a brief insight on the USAID activity planning processes:

1. The USAID mission develops strategies that state what they want to do for economic growth through selected sectors. This is long term and general.
2. An operational plan for the year with specific allocated and locked in the activities.

This process usually takes place in March for the following year's activities.

This, he explained makes it difficult for the mission to have any extra resources for any other activity not included in the operational plan. He however, agreed that the mission should provide some level of oversight but this is impeded by shortage of staff. It is important that

Aquafish CRSP and the African Union continue to engage with USAID through sharing information especially on activities of other projects funded by USAID.

Mr. Ratego informed the members that USAID-Kenya has developed a food security programme targeting staple food. They are promoting what they term as orphan food crops of which fish is included.

Meeting recommendations

1. Aquafish CRSP to share ongoing Aquaculture projects information with USAID-Kenya – **Action Prof. Ngugi**
2. Establish a collaboration mechanism RCE/AU-IBAR/USAID – Kenya
Action: All
3. Organize for a meeting between Head of AU-IBAR Animal Resources Production unit and the Head of Agriculture, Business and Environment, USAID-Kenya office.
Action: Mrs. Gitonga and Mr. Ratego
4. Involvement of RECs in aquaculture development initiatives
Action: AU-IBAR and NEPAD (Mrs. Gitonga to initiate)

In Mali USAID mission funded the Leader with Associate, award project on “Aquatic Resource use and Conservation for Sustainable Fresh water Aquaculture and Fisheries”. In Kenya, we have worked with USAID Mission through Kenya Business Development Services (KBDS) and recent discussions on future collaboration were held during the visit by Dr. Kwamena Quagraine in June 2009 and a second visit April 15, 2010 at the USAID mission offices in Gigiri, Nairobi, Kenya.

Cross-cutting Theme: Biodiversity Conservation and Environmental Impact

RCE in Africa engaged policy makers in discussing the need to implement the aquaculture economic stimulus package in Kenya in a responsible manner without polluting the environment.

ACRONYMS and ABBREVIATIONS

ACRSP = Aquaculture Collaborative Research Support Program

AquaFish CRSP = Aquaculture and Fisheries Collaborative Research Support Program

ANAF = Aquaculture Network for Africa

CRSP = Collaborative Research Support Program

COMESA = Common Market for Eastern and Southern Africa

FAO = Food and Agriculture Organization (of the United Nations)

HCPI = Host Country Principal Investigator

IGO = Inter Governmental Organization

NEPAD = New Partnership for Africa's Development

NGO = Non Governmental Organization

SARNISSA = Sustainable Aquaculture Research Network in Sub Saharan Africa