

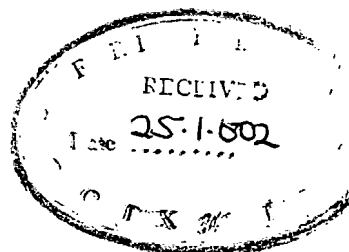
NAROIMAAIF FISH FARMING PROJECT

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**SMALL-SCALE FISH FARMING
FOR FOOD SECURITY AND INCOME GENERATION**

Progress Report;
September 1999 - February 2000

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Introduction and Contents

This short progress report is the third progress report prepared for the NARO/MAAIF Fish Farming Project. It has been prepared in advance of the third Steering Committee Meeting scheduled for March 28th 2000. at which it will be used as the main reporting document.

The report describes progress during the period, (September 1999 - February 2000) and is organised in a similar manner to the Jan-Aug 99 report. It follows the format of the Logical Framework with the first 4 sections focusing on the four Project logical framework outputs. The Logical Framework has been slightly revised as a result of the Inception Review in September 1999 and can be found in Appendix 1.

The wording of the four Project Outputs has been revised and these are now as follows:

- 1) Improved institutional capacity and linkages for poverty focused aquaculture development established at district and national level involving public sector, NCO's and local organisations.*
- 2) The identification of improved aquaculture technologies and indigenous species fish strains appropriate for use by the rural poor within the existing farming system.*
- 3) Improved delivery of poverty focused extension services addressing the needs of farmers with ponds at district and sub county levels.*
- 4) An improved institutional base on small-scale aquaculture for planning and monitoring.*

This report also includes the following sections.

- 5) Reports Produced.*
- 6) Project Expenditure Sept 1999 - Feb 2000*
- 7) Proposed work-plan for the period Mar - Aug 2000.*
- 8) Annexes*
 - 1) The revised Logical Framework*
 - 2) A summary of Recommendations from the Project Inception Mission.*

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Progress against Outputs

Output 1:

Improved institutional capacity and linkages for poverty focused aquaculture development established at district and national level involving public sector, NGO's and local organisations.

Progress achieved over the period September 1999 - February 2000 is as follows:

- 1) The Development of facilities at Kajjansi is close to completion.
 - The Project Office has been established and operational since January 2000. Three computers, 2 printers and a scanner have been installed.
 - The renovation of the Donnitory is close to completion
 - The Construction of the Training Room and Library is well advanced
 - A 45 KYA Generator has been installed at the site.
 - Two telephone lines have been installed in the Project Office. A fax machine has been connected. E mail/Internet access will follow shortly.
 - A study of water supply options and appropriate designs has been initiated by a consultant water engineering company.

- 2) The recruitment of 10 staff to assist in Project implementation.
 - One NARO Socio-Economist is working from Kajjansi.
 - Four Area Based Co-ordinators have attended training and orientation at Kajjansi and have been posted at District level (Bushenyi, (West); Lira (North); Arua, (West Nile». The ABC responsible for the Central region works from Kajjansi.
 - Three junior Drivers and one senior Driver have been recruited. These are based at Bushenyi, (1) and Kajjansi, (3)
 - A Secretary has been recruited and is working from the Kajjansi Office.
 - Monthly staff meetings have been held and minuted since December 1999. Work protocols, (eg accounting and reporting requirements) have been established. Representatives, (in most cases the DFO) from each of the target districts was invited to attend the monthly meeting in order to familiarise themselves better with the Project.

3) Relations with NARO/FIRI have improved

- A visit by the NARO board to Kajjansi on 11th January 2000 enabled the Project to present some of its work and highlight some of the issues affecting implementation.

4) The Project continues to enjoy the full co-operation of districts and sub-counties in the year 1 target districts.

- The establishment of the ABCs at district level has further improved the good relationships existing between the Project and the target districts, Bushenyi, Kasese, Mbarara (Ibanda), Lira, Gulu, Kitgum, Mubende, Luwero, Arua, Nebbi.
- Project support to District and Sub County fisheries staff has been standardised for all Project areas.
- Practical collaboration has so far focused on the Baseline Survey and on-farm trials.

5) The level of collaboration between the Project and the Fisheries Training Institute has increased.

- Four students from FfI are carrying out special studies at Kajjansi under the guidance of Project staff
- The Project has supported an FfI based, MAAIF training of Fisheries Officers recruited under the PMA, in early March 2000. It is anticipated that several of these officers will work with the Project in the future.

6) Relationships with a number of NGOs have improved.

- The Project strategy for working with NGOs remains to identify those organisations active in the target districts, where collaboration can have a field focus, either through data collection and/or on-farm trials.
- Seven NGOs have participated in the baseline survey data collection exercise and a number of smaller NGOs are collaborating during the first round of on-farm trials. Many of the larger NGOs are watching the trials, to assess the outcome before collaborating with the Project.
- The Project has a strong relationship with CARE, due to the Western ABC working closely with their Office in Bushenyi, and the launch of the second DFID sponsored fisheries project which has CARE in a central implementation role.

Problem Areas

- 1) It was not possible to arrange the third steering committee meeting, in November 1999, as planned.
- 2) Terms of reference for the Steering Committee have not yet been agreed.
- 3) The critical positions of Research Co-ordinator and Training Specialist are not actively filled by seconded staff. This has meant other Project staff having to divert energies from their own responsibilities to cover these important functions.
- 4) There has been little progress over developing a stronger relationship with MUK.
- 5) Despite the efforts made through the series of mobilisation workshops during the first 6 months of the Project, a few Districts have expressed dissatisfaction that they are not fully aware of what the Project is doing nor how it is operating.

Output 2:

The identification of improved aquaculture technologies and indigenous species fish strains, appropriate for use by the rural poor within the existing farming system.

Progress achieved over the period September 1999 - February 2000 is as follows:

- 1) Pond facilities at Kajjansi have been improved.
 - Seven ponds have now been fully renovated through de-silting and the installation of improved inlets and outlets.

- 2) Improved techniques of Tilapia seed management have been introduced
 - Fry are now collected from ponds with only pure stocks present and moved to happas, where they are fed a high protein diet in fertilised ponds. Farm staff involved with seed production have developed good skills at collecting, nursing, conditioning and preparing seed for transport .
 - Happas made from imported polyester mosquito nets have been used successfully at Kajjansi and are being tried in the field. These simple nets greatly enhance the scope for management of fry/fingerlings.
 - During the reporting period, in excess of 50,000 pure *Oreochromis niloticus* seed were produced for on-farm trials and private sale. A small number of *Tilapia rendali* were also successfully spawned but no success was achieved with *Oreochromis esculentus*.

- 3) Tilapia Broodstock from the wild have been introduced and isolated in ponds at Kajjansi
 - 120 Brood stock of *Oreochromis niloticus* from Lake Victoria and Lake George are now maintained in isolated ponds at Kajjansi. Growing out the *Oreochromis niloticus* stock held at Kajjansi, showed this fish to be hybridised with *Oreochromis leucostictus*, with females maturing at around 6 months.
 - Plans for the collection of Tilapia from Lake Albert were postponed due to the (deteriorating security situation in the area.

- 4) Growth trials of different Tilapia strains have been carried out.
 - On station research work carried out during December - February suggests that the growth of *Oreochromis niloticus* from Lake Victoria is superior to that from Lake George. Lake Victoria seed has shown excellent growth rates under green water conditions, achieving a size of 40g in 60 days.

- Much of this work has been done as part of an FII student's special project, and highlights the mutual benefits that can accrue for both student and the Project, if relevant topics are selected.

5) Research **with other** species has been **initiated**

- Research work on the ability of *Clarias carsonii* and *Clarias gariepinus* to control tilapia recruitment has been planned and will be conducted by two FII students beginning March 2000. Broodstock of both these species have been successfully collected and are currently being acclimated at Kajjansi. This topic also has relevance to Uganda's small-scale fish farming community.

Problem Areas

- 1) The lack of a Research Co-ordinator to plan and oversee on-station research and seed production work at Kajjansi is a major concern and is constraining the development of technologies to test with farmers through on farm trials.
- 2) The inception review did not support the Project's intention to use DFID funds for the development of a hatchery at Kajjansi, as it felt that the LVEMP funds allocated for this development should be more than adequate.
- 3) As Project and other on-station activities increase at Kajjansi, there is a need for improved co-ordination of activities to ensure that one persons/projects work **does** not adversely affect the work of another.
- 4) Some problems with maintaining isolated fish stocks at Kajjansi have been experienced with the infiltration of *Tilapia zillii* and *Oreochromis leucostictus* into brood stock ponds. This necessitates the rotation of brood stock into new ponds, every three months to ensure that seed produced remains of known quality.
- 5) Interference from the exotic crayfish, *Procambarus clarkii* at Kajjansi is a persistent problem and can result in happas being cut and fry/fingerlings damaged. It is probably now impossible to eradicate this organism from the site as it exists upstream of the farm. This issue highlights the folly of un-planned, ad-hoc introductions of exotic aquatic species to natural systems.

Output 3:

Improved delivery of poverty focused extension services addressing the needs of farmers with ponds at district and sub county levels

Progress achieved over the period September 1999 - February 2000 is as follows:

- 1) A needs assessment of target Districts carried out.
 - The ABCs have carried out informal assessments of District and Sub County fisheries staff needs and skill constraints which has been used to guide short course training sessions.

- 2) The On-farm Trials Program has been Initiated
 - Working with their District and Sub County counterparts the ABCs have initiated an ambitious program of on farm trials. A total of 36 trial ponds have been stocked during the reporting period in all zones except the north. A schedule of sampling and extension modules to be introduced, has been agreed. A system for collecting data from the on-farm trials has been standardised.

An Overview of On-Farm Trials by Zone

Zone	Number stocked	Number prepared
Central	15	5
North	0	12
West Nile	9	5
West	12	8

- 3) Initial sampling suggests satisfactory fish growth in most cases. Generally fish stocked at Ig are reaching a size of around 10g after 1 month, and 50g after 3 months. At this growth rate fish should reach a marketable size of around 200 g within the 6 month production period.

- 4) Training for District/Sub-County staff carried out
 - Eight fisheries Officers from Arua, Nebbi, Gulu, Lira, Bushenyi, Mbarara, and Mubende, involved in the on-farm trials program have attended intensive training at Kajjansi to improve their understanding of aquaculture and to familiarise them with the workings of the Project. The Project will continue to hold short course training for small groups of District and Sub-County staff, on a monthly basis.

5) Seed Producers Identified

- A number of households have been identified as having the potential to be quality seed producers. It is likely that those households that are most co-operative and successful through the on-farm trials program will be graduated to become seed producers for their local areas.

6). Local Groups and Associations Identified

- ABCs have started collecting data on local groups and associations involved in fish farming. The most promising and poverty-focused of these groups may in future become partners in project extension activities.

Problem Areas

- 1) The lack of input from a Training Specialist has constrained the effectiveness of the training courses carried out so far. There is a pressing need for a full time input into this work area in order to develop fully appropriate training curricula and materials.
- 2) Insecurity in the North and West of the country has constrained activities in Kitgum, Gulu and Kasese. The situation in North became so difficult that the ABC had to relocate to Lira, which is now included in the target districts for year 1 trials.

Output 4:

An improved information base on small-scale aquaculture for planning and monitoring.

Progress achieved over the period September 1999 - February 2000 is as follows:

1) Training Workshops held for Baseline Survey Enumerators

- The Project Socio-Economists organised a series of 6 regional training workshops for co-ordinators and enumerators to help with data collection for the Baseline Survey. 78 field staff from local government and NGO's participated.

2) Baseline Data Collection completed.

- The collection of baseline data was completed to schedule in November 1999. In total, data on 2,500 households was collected from 50 sub-counties in 30 Districts.

3) A Database for handling Baseline data has been established

- A database has been set up to allow for the efficient storage and retrieval of baseline information. This took rather more time than was expected but has been completed during the reporting period. In part, data entry is being contracted out, and should be completed by May 2000.

4) Knowledge, Attitudes and Beliefs Study started

- A study of the knowledge, attitudes and beliefs associated with fish culture in Uganda has started. This study is being carried out by an FTI student, supervised by the Project Socio-Economists and will be completed within 4 months. It will focus on 80 fish farming households in pilot districts, and will help to identify entry points for extension messages and indicators for project progress.

5) Household-level Economics of Fish Farming

- Co-ordinated by the Project Socio-economist, ABC's have been collecting data on resource flows within fish farming households. At the moment, this activity is closely linked to the monitoring of on-farm trials; but it will provide a foundation for a subsequently more detailed assessment of the economic viability of household-level fish ponds.

6) Visits to Malawi by Project Manager and Advisor.

- Both the Project Manager and the Project Advisor visited Malawi during the reporting period to meet with ICLARM Project colleagues in Domasi. This proved useful in highlighting the opportunities and constraints facing aquaculture in Sub-Saharan Africa.

Problem Areas

- 1) The lack of data from the eastern side of the country is a criticism often heard from those with an interest in the Baseline Survey. Were this data to be collected then a complete picture of aquaculture, and the related issues of agriculture, marketing, income, fish consumption patterns etc. in the country could be completed. The Project Inception Review team also recognised this short coming and suggested that, resources permitting, the Project take steps to carry out a similar survey in the East of the country from the middle of this year.
- 2) Development of the resource centre at Kajjansi is yet to occur due to the delay in completion of the Training and Library block.
- 3) The planned study of 'the potential environmental impact of the wider dissemination of Common Carp in Uganda', by FIRI has been delayed due to the slow contractual procedures used by DFID Nairobi. This study is now scheduled to start from April 2nd 2000

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5. Reporting.

1) During the reporting period the following documents have been produced.

- Project Inception Report, September 1999
- Project Summary Report; September 1999 - February 2000
- Baseline Survey Training Workshops Summary Report, October 1999
- Minutes of Staff Meeting; (6-7 December 1999)
- Minutes of Staff Meeting; (3-4 February 2000)
- Minutes of Staff Meeting; (28-19 February 2000)

6. Project Expenditure; September 1999 - February 2000

- 1) The Project Imprest account was finally opened at the end of February 2000 and this should streamline cash flow and enable smoother implementation. The system used to date has been far from satisfactory with cash shortages frequently disrupting project activities.
- 2) Total expenditure during the reporting period was \$135,678.34¹. A breakdown of expenditure by line item is found below.

Line Item	1/9/99 - 30/11/99	1/12/99 - 30/2/2000	Total for reporting period	
	UG Sh.	Ug Sh	Ug Sh	US\$
accommodation	1,212,300	553,600	1,765,900	1,177.27
actuals	935,150	213,100	1,148,250	765.50
civil works	41,957,616	17,648,304	59,605,920	39,737.28
entertainment	58,400	807,550	865,950	577.30
equipment	14,076,240	31,868,000	45,944,240	30,629.49
extension materials	10,000	0	10,000	6.67
field materials	0	1,146,100	1,146,100	764.07
film	20,600	35,000	55,600	37.07
fuel	3,897,297	5,996,425	9,893,722	6,595.81
local consultants	10,938,238	0	10,938,238	7,292.16
office general	128,494	1,250,250	1,378,744	919.16
on station materials	2,350,804	1,330,504	3,681,308	2,454.21
per diem	8,804,600	9,814,800	18,619,400	12,412.93
pond rehab	418,500	979,000	1,397,500	931.67
postage	39,900	2,000	41,900	27.93
reference materials	17,000	93,500	110,500	73.67
rent	0	3,400,000	3,400,000	2,266.67
reviews	730,500	85,050	815,550	543.70
salaries	6,117,800	8,605,900	14,723,700	9,815.80
stationary	1,663,000	605,560	2,268,560	1,512.37
stock	220,000	0	220,000	146.67
Baseline survey	5,679,690	1,750,490	7,430,180	4,953.45
telephones.	236,500	321,400	557,900	371.93
training	353,100	1,911,150	2,264,250	1,509.50
travel	507,400	3,955,100	4,462,500	2,975.00
vehicles	1,286,994	2,970,103	4,257,097	2,838.06
workshops	6,429,500	85,000	6,514,500	4,343.00
			-	-
TOTALS (UG Sh)	108,089,623	95,427,886	203,517,509	135,678.34
TOTALS (U\$)	72,059.75	63,618.59	135,678.34	

¹ This amount will increase slightly as the last February receipts from the field are processed.

March - June |

7. Work-plan; March - August 2000

	Mar	Apr	May	Jun	Jul	Aug
1. Improved institutional capacity and linkages for poverty focused aquaculture development established at district and national level involving public sector, NGO's and local organisations.						
I. Completion of phase I civil works.	█					
2. Design of water supply for Kajjansi		█				
3. Development of water supply for Kajjansi					█	█
4. Steering Committee Meetings held and minuted.	█					
5. 1 st draft of strategy paper on poverty focused research and extension..			█			
6. Visits by senior NARO staff to on-farm trials program				█		
7. Visits by senior District staff to on-farm trials program					█	█
8. Participation in District Planning exercises		█	█	█	█	█

- Hatchery.

- Recruit Research & Training Coordinator
 Determine tasks for

	Mar	Apr	May	Jun	Jul	Aug
2. The identification of improved aquaculture technologies and indigenous species fish strains appropriate for use by the rural poor within the existing farming systems.						
1. Production and dissemination of 25,000 <i>O. niloticus</i> seed/month for on-farm trials and private sales.						
2. Research into <i>Clarias sp.</i> predation of tilapia fry.						
3. Draft design for improving the aquaria system for Kajjansi prepared.						
4. Development of recirculated aquaria system for Kajjansi						
5. On-growing of <i>O. niloticus</i> from Lake Vic, George						
6. FOR for an APO to assist with seed production, (on-station and on-farm) to be drafted.						
7. New inlet channel for F/H series ponds						
8. Collection of Broodstock <i>O. niloticus</i> from Lake Albert.						

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	Mar	Apr	May	Jun	Jul	Aug
3. Improved delivery of poverty focused extension services addressing the needs of farmers with ponds at district and sub county levels						
1. On farm trials Program (total 160 households), preparation, stocking, extension modules, sampling.						
2. Results from On-Farm Trials Program analysed						
3. District level Workshops to discuss OFT results						
4. Training of Sub County Fisheries graduates under the PMA						
5. Training in basic aquaculture technology for counterpart staff at district /sub county level.						
6. Planning of first extension materials development .						

	Mar	Apr	May	Jun	Jul	Aug
4. An improved information base on small-scale aquaculture for planning and monitorin .						
1. Baseline data entry completed	█	█				
2. Baseline survey analysis		█	█			
3. Regional Baseline Survey Workshops			█	█		
4. Final Report				█	█	
5. Common carp EIA carried out and report completed, (carried over)		█	█	█		
6. Workshop on the Common Carp in Uganda organised by Project.				█	█	
7. Establishment of a computerised resource centre at Kajjansi.		█	█	█		
8. Knowledge, Attitudes, Beliefs, (KAB) study carried out by FTI student.	█	█				
9. Eastern Region data collection				█	█	
10. Study of local groups and associations	█	█	█	█	█	
11. Study of household level economics	█	█	█	█	█	
12. Study of nutrition and food security				█	█	
13. Establishment of an Information Database	█	█	█	█	█	

Appendix 1.

LOGICAL FRAMEWORK (FINAL DRAFT; 5/11/99)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions
<p>Goal:</p> <p>Poverty reduction and improved quality of life amongst Uganda's rural population</p>	<p>Improvement in household and social indices for rural populations in Uganda</p>	<p>National poverty surveys</p>	<p>Macro-economic stability is maintained</p>
<p>Purpose:</p> <p>To increase, on a sustainable basis, the contribution of aquaculture to small-holder household livelihoods, income generation and food security</p>	<p>Fish production by at least 25,000 poor farmers increases x 4 from an average of x (established through baseline by yr. 1), within 10 years.</p> <p>80% of statistically valid sample of fish producing households indicate significant contribution to livelihoods (food security and household income) by yr5. Data disaggregated by gender demonstrates the same outcome from fish for women and their dependants with households and equally in outcome for male and female headed households.</p>	<p>Project OPRs</p> <p>Non-project rural, agricultural, economic, health surveys</p> <p>Ex ante impact assessment</p>	<p>Benefits derived from aquaculture used to contribute to household income.</p>

<p>Outputs:</p> <p>1. Improved institutional capacity and linkages for poverty focused aquaculture development established at district and national level involving public sector, NGO's and local organisations.</p>	<p>Structure/network for coordinating and developing the smallholder sector established with mechanisms for post-project continuation in place by end of yr4.</p> <p>Poverty focused aquaculture in District Development Plans by yr 4 and in national agricultural policy documents by yr 5.</p> <p>Increased allocation of funds for fish farming in district plans within 2 years of working in each district.</p> <p>Shift in client focus of organisations that are undertaking research, training and dissemination to a more poverty focused approach.</p> <p>National Aquaculture Focus Group is active and influential in mainstreaming poverty in aquaculture initiatives</p> <p>Graduates from Makerere University and students from Fisheries Training Institute have an awareness of appropriate fish farming technologies for the rural poor.</p> <p>Business plan for Kajansi Fisheries Research Institute developed and updated annually and appropriate training for staff completed by month 18.</p> <p>Basic support services including training facility, dormitory, demonstration ponds at Kajansi operational by yr2</p>	<p>Project quarterly and annual reports.</p> <p>Steering Committee Meeting Minutes</p> <p>National and district organisation records and reports</p> <p>NGO records and reports</p> <p>Agreements signed between Kajansi Fisheries Institute, MUK and FTI detailing specific collaborative activities and resource allocation</p> <p>Business plan agreed and published</p>	<p>Government of Uganda policy remains poverty focused</p>
<p>2. The identification of improved aquaculture technologies and indigenous species fish strains appropriate for use by the rural poor within the existing fanning system.</p>	<p>Improved fish stocks developed and distributed to the fry production farmers by yr2.</p> <p>Fish farming technologies developed capable of producing in excess of 40Ugmslm2/year from under local rural conditions.</p> <p>4U farmers producing quality seed for distribution in 1) pilot districts by yr3</p>	<p>Physical installation and case/operating/production records</p> <p>Stock records, project reports</p>	<p>Technologies appropriate and adopted by farmers</p> <p>Production technologies environmentally benign.</p> <p>Fry production remains a profitable enterprise.</p>
<p>3. Improved delivery of poverty focused extension services addressing the needs of farmers with ponds at district and sub county levels</p>	<p>Key information on small scale aquaculture disseminated to extension workers in nine pilot districts area farmers by the end of yr2, and to other districts by yr 3.</p> <p>50% of smallholder producers with ponds in 1) pilot districts adopting main aquaculture technical messages by yr 3 and a similar percentage in other pilot areas by yr 5.</p> <p>Number of poor households adopting fish farming as part of their farming system increases annually over baseline,</p>	<p>Project documentation and work-plans.</p> <p>Project training modules</p> <p>Extension messages and documentation of their development</p> <p>Extension materials produced.</p> <p>Project and district records</p> <p>Year 3 adoption study results.</p>	<p>Continued support for extension at the district and sub county level.</p> <p>Increased production allows district authorities to generate additional revenue which in turn can sustain service delivery.</p>

		<p>Training reports and District! NGO activity reports</p> <p>District development plans, detailing local and project contributions.</p>
<p>4. An improved information base on small-scale aquaculture for planning and monitoring</p>	<p>Baseline social, technical and economic information collected of relevance to small scale fish farming by end year 1 and incorporated into a Management Information System enabling sustainable monitoring systems by yr4</p> <p>Smallholder constituency identified, needs defined and approaches developed to reach poor households in 9 pilot districts by end of yr2 and similar activities in other pilot areas by yr 4.</p> <p>Contribution of smallholder aquaculture to poverty eradication established and recognised.</p>	<p>Survey designs and project reports</p> <p>Project baseline study summary</p> <p>Project baseline databases.</p> <p>Recommendations produced from baseline survey.</p> <p>National and district level policy document contents</p>

Activities:	Costs/Inputs:	Means of Verification	Assumptions
<p>1. Improved institutional capacity and linkages for poverty focused aquaculture development established at district and national level involving public sector, NGO's and local organisations.</p> <ol style="list-style-type: none"> 1. Establish project office and develop project strategies, initial workplans and operations. 2. Consultations with GoU, NGO, other interested institutions and private farmers to establish project operating framework. 3. Establish plans, strategies, roles linkages of different organisations, to develop a sustainable stakeholder network 4. Develop business plan for Kajjansi and train staff 5. Prepare Kajjansi as training/ demonstration venue 	<p>Civil works at Kajjansi; £38,000 equipment: £46,000 vehicles; £125,000 operational costs; £170,000 Consultancy: £43,000 I TCO, years 1-5 I Socio-economist, years 1 & 2 Training costs: £138,000</p>	<p>Project and network member workplans and reports</p>	<ol style="list-style-type: none"> 1. Plans and strategies can be fine into the priorities and roles of key organisations. 2. Organisations accessible, and willing to participate, comming human and other resources
<p>2. The identification of improved aquaculture technologies and indigenous species fish strains appropriate for use by the rillal poor within the existing farming system.</p> <ol style="list-style-type: none"> 1. Develop awareness and train to fill gaps in knowledge and skills of key stakeholders 2. Establish fish disease and genetic improvement facilities. 3. Commission research to assess and improve the quality of fish seed supply. 4. Establish and distribute improved stock to fry production centres and pilot producers 5. Develop hatchery performance and stock monitoring system. 	<p>Water supply; £15,000 Equipment; £26,000 Pond development and on station trials; £20,000 Training at Kajjansi; £70,000 Overseas training for staff; £15,000 Operating costs: £14,000 Consultancy: £36,000</p>	<p>Physical installations, inventories, project and activity reports, study findings, stock records</p>	<ol style="list-style-type: none"> 1. No significant delay in GoU offer of facilities or establishment of management arrangements with FIRIINARO or Makerere University 2. Local research collaborators available and effective

<p>3. Improved delivery of poverty focused extension services addressing the needs of farmers with ponds at district and sub county levels</p> <ol style="list-style-type: none"> 1. Review support services, identify key locations (private and institutional) provide targeted support for fry production centres. 2. Promote local service and supply networks between smallholder fish farmers. 3. In consultation with stakeholders, review existing formal/informal extension systems and develop effective approaches and linkages 4. Carry out training and logistical needs assessment for subject matter specialists. 5. Collect, develop, distribute appropriate technical and other information to extension support staff, field workers and farmers. 6. Conduct training courses for subject matter specialists in GoU, NGOs, other organisations. 7. Conduct field based training courses for FEWs (+ NGO equivalent) concentrating on extension skills. 	<p>Operating costs; £181,000 Extension materials: £32,000 Field based Training courses: £33,000 On-farm research: £41,000 Equipment; £4,000 Training overseas; £25,000 APO; £40,000</p>	<p>Physical installations, inventories, project workplans and reports, course schedules and attendance records, study and monitoring reports</p>	<ol style="list-style-type: none"> 1. Agreement possible on approaches and linkages. 2. Key information can be targeted and made available in suitable format/language 3. Course participants released for training by Districts and other organisations. 4. Facilities and staff available for training at District level. 5. Collaborative farmers identified. 6. Fry centres interested in replacing existing stock with improved strains 7. Local individuals/groups are interested in exchanging/co-operating in support and supply
<p>4. An improved information base on small-scale aquaculture for planning and monitoring.</p> <ol style="list-style-type: none"> 1. Carry out sector reviews at district and national level to identify all stakeholders 2. Study poor smallholder households to determine constraints and factors affecting access to aquaculture benefits. Identify key issues for women and children. 3. Carry out participatory appraisals with smallholder constituency to identify measures of project impacts on household livelihoods and means of collection of those measures. 4. Carry out frame survey to establish baseline for aquaculture development in target districts 5. Establish an aquaculture data system for Uganda and design/implement mechanisms for sustainable information management. 6. Measure and record project and associated impacts; develop a strategic 	<p>Operating costs; £147,000 Equipment; £3,000 Reference materials; £33,000 Consultants; £21,000 Workshops; £17,000 Review missions: £29,000 Total cost: £1,362,000 + TCO costs + pre-implementation costs + contingencies</p>	<p>Project workplans and reports, survey reports, data records, strategy and policy materials, evaluation reports</p>	<ol style="list-style-type: none"> 1. Appropriate baseline structure can be defined, and survey targets can continue 2. Commitment at field level for collection of information; information base administration taken up by counterpart institution 3. Delinable policy structure remains and is effective.

<p>perspective on future sectoral benefits and needs, including techniques, resources, training, infrastructure.</p> <p>7. Establish systems and disseminate information to wider community and policy makers; raise awareness of sectoral benefits and needs.</p> <p>8. Implement project monitoring system; carry out initial, mid-term and final review/e valuations.</p> <p>9. Through field-based processes, refine and improve technical and socio-economic information using on-farm adaptive research</p> <p>10. Implement field level monitoring to ensure extension messages are reaching the farmers.</p>			
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Appendix 2

Main findings from Inception Review.

The Inception Review recommended the following actions.

1. Redrafted logical framework be adopted.
2. Project to organise a workshop to familiarise stakeholders with the logical framework and the objectives of the project.
3. Agreements for collaboration between institutions should be between NARO/Kajansi Fisheries Institute and the organisations and not with the project
4. Project to be cautious of being drawn into capacity building and institutional support not consistent with project outputs and in assuming the role of other institutions in training.
5. Terms of Reference and guidelines for operation of the Steering Committee and ultimately the Aquaculture Focus Group to be established.
6. Consideration be given to a review of the educational and training capacity within the fisheries sector with a view to provision of support - *Dr. Barlow*
7. Mechanisms for the provision of funds to contribute/match district budgetary provision need to be established early in project implementation and be consistent with other mechanisms for support established in other sectors.
8. Project to undertake baseline survey and consider merits of working in the eastern region if possible within the existing budget
9. Information generated from analysis of the baseline information to be produced in a format suitable for wide circulation including OED RNRKS Programme Managers.
10. Improved extensive exchange of information within the Programme Office in Kampala to ensure opportunities for collaboration are explored, particularly when there are a diverse range of opportunities to support poor farmers livelihoods within a diversified farming system.
11. The Project should be cautious not to support the Kajansi Institute in becoming a commercial fry rearing and therefore unfairly compete with the private sector.
12. The farm should not undertake training which is a legitimate role for other fisheries training institutes. Collaborative agreements for use of the farm by institutions for short term demonstration and training to be put in place
13. The Project should prepare a brief strategy document to explicitly address the current bias of focus of activities and attitudes at district, country and sub-country level to more wealthy farmers and monitor progress towards more poverty focused research and extension.
14. The Project should not allocate funds for a hatchery facility as anticipated in the Project Memorandum as GEF LVEP have financial allocation for this.
15. Should the project consider the use of local species requiring more intensive egg incubation and fry rearing, the development of any hatchery facilities be approached cautiously and the minimum required be considered utilising existing buildings on farm
16. An Associate Professional Officer to be attached to the Project in Year 2000.

Terms of Reference
for
The NARO/MAAIF Fish Farming Project Steering Committee

The NARO/MAAIF Fish Farming Project Steering Committee will comprise of one representative from the following Institutions:

- NARO Secretariat,
- NARO Outreach
- FIRI (Jinja)
- FIRI (Kajjansi)
- Fisheries Department
- MAAIF Planning Dept.
- Ministry of Local Government Planning
- Ministry of Finance
- Makerere University / Zoology, Nat. Dept. Agric ?
- Makerere Institute of Social Research,
- Fisheries Training Institute.
- UFFCA (ex officio)
- UCFU (ex officio)

The Committee will meet every 6 months and perform the following functions.

1. Ensure that the Project moves towards meeting its objectives of poverty alleviation through the promotion of small scale aquaculture.
2. Discuss and resolve any issues which are affecting the successful implementation of the Project
3. Review Project reporting and assess work progress against previously agreed work-plans.
4. Agree Project work-plans and budgets for the following 6 monthly period
5. Ensure that all institutions with a stake in the Project, provide resources and staff in a timely and productive manner.
6. Advise Government Departments on sectoral Policy issues highlighted by the Project.
7. During the course of the Project, develop a strategy for sustained support to aquaculture development extending beyond the Project period.



NATIONAL
AGRICULTURAL
RESEARCH
ORGANISATION

SECRETARIAT

P.O BOX 295, ENTEBBE, UGANDA
TELEPHONE: 041-320512 OR 320322/3 OR 320341/2
FAX: 256-041-321070
E-maU:narahqOImul.cam

IN ANY CORRESPONDENCE ON
THIS MATTER PLEASE QUOTE NO

20th March, 2000

SECRETARIAT, FRI
KANSI.

Dear Sir[✓]Madam

Re: The Third Steering Committee meeting, Small-scale Fish Farming
Project 28/03/00

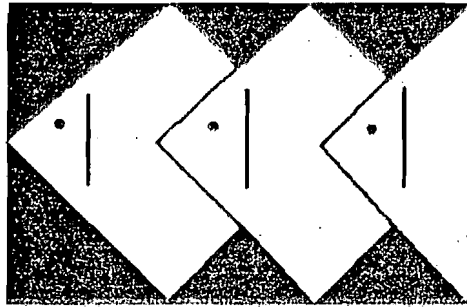
You are invited to the Third sitting of the Steering Committee for the NAROIMAAIF Small-scale Fish Farming project to take place on Tuesday 28th March 2000 at Kajjansi Fisheries Research Station. The programme for the day, which includes official opening of the project office, the training hall and the rehabilitated dormitory, is long and therefore it will be a full day function starting at 8.30am ending at 4.00pm.

Please find enclosed the agenda for the day and the Minutes of the Second Steering Committee Meeting which sat on the 30th August; 1999.

Your personal participation will be most highly appreciated.

Yours sincerely,

Prof Joseph K. Mukiibi
Director General

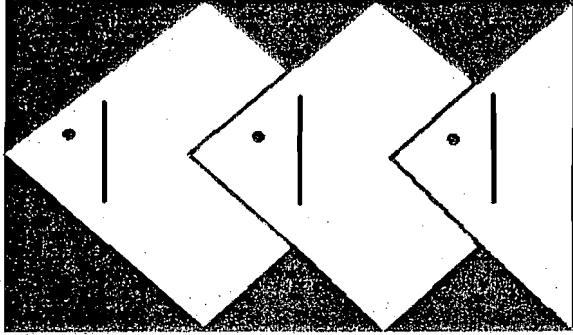


NARO/MAAIF FISH FARMING PROJECT

Third Steering Committee Meeting Agenda

Kajjansi Fisheries Research Station; Tuesday 28th March 2000

Time	Programme
08:30	Registration
09:00	Tour of Kajjansi Facilities
09:30	Presentation of Agenda
09:45	Steering Committee Terms of Reference
10:15	Coffee Break
10:45	Report on Inception Review and Revised Logframe
11:15	Progress Report: Oct 99 - March 2000
11:45	Discussion
12:30	Lunch: (Ranch on the Lake)
14:00	Presentation of 6 monthly Work-plan
15:00	Discussion
16:00	AOS



NARO/MAAIF FISH FARMING PROJECT

Minutes of the
2nd Steering Committee Meeting
30th August 1999

List of Participants.

Name	Organisation
Mr Faustine Ojacor	NARO
Mr Rick Gregory	DFID
Dr. Simon Heck	DFID
Dr Mwesigwa Magyembe	NARO
Dr Nakanyike Musisi	MISR, Makerere University
Gertrude Abalo	Fisheries Training Institute
Gertrude Atukunda	NARO
Mr A Oworu-Wadunde	NARO
Mr Mawazo Yusuf	UFFCA
Mr. David Tilia	MAAIF
Dr. Constantine Odongkara	FIRI
Mr Mohammed Kigugundu	Ministry of Economic Planning
Mr Charles Olett-Ogwang	NARO

Documentation available at Meeting

- Minutes of First Steering Committee Meeting, June 1999
- Project Progress Report, (Draft) June - August 1999
- 2nd Steering Committee Meeting Agenda.
- Project Memorandum.

Minutes of Meeting.

1. Mr Faustine Ojacor, (Chair) opened the meeting at 2:30 with apologies from the ~~Prof. Dr Mukiibi~~, (DG NARO) and Janet Atim, (Principal, FTI) who were unable to attend. A short opening speech, prepared for Dr Mukiibi was read out by Mr Ojacor.
2. Dr Simon Heck, (DFID) summarised the minutes of the first meeting. Mr Mawazo Yusuf, (UFFCA) felt the minutes did not reflect the need for technical assistance to NGOs, strongly enough. There were no other amendments.
3. Mr Gregory, (DFID) presented a summary of progress on the Project over the past three months. Copies of the draft progress report for June-August 1999 were given to all participants.
4. A revised wording of outputs from the Project Logical Framework was introduced by Mr Gregory as the preferred reporting and monitoring format by Project staff and asked the Steering Committee to consider whether the changes were acceptable, during the course of the presentation.
5. Progress was summarised under the revised Outputs as follows:
 - Improved institutional capacity and linkage for poverty focused aquaculture development.
 - The identification and development of aquaculture technologies for use by the rural poor.
 - A sustainable information base on rural livelihoods for improved aquaculture planning, monitoring and policy.
 - Improved promotion of aquaculture through poverty focused extension services.
6. Mr Gregory also summarised reporting documents produced and expenditure by line item, during the last 3 months
7. A number of issues arose from this presentation. The first regarded accounting staff and systems used. Dr Magyembe asked whether ~~the~~ the project was planning to employ an accountant. Mr Gregory replied that there were no plans at present and the system in place worked well enough. Mr Mohammed (MEP) requested that financial reporting be against planned expenditure rather than just totalled under line item headings.

8. There was interest in the GIS¹ data issue and Mr Gregory was asked how far negotiations had got with other DFID projects with regard to sharing costs of one data set. Mr Gregory stated that discussions were still at an early stage. Mr Ojacor suggested that the Project talk to Mr Baguma, (NARO) regarding the GIS issue. Mr Baguma works for NARO's monitoring and evaluation unit.
9. A draft workplan for the next 6 months was introduced by Mr Owori-Wadwilde, again organised around the 4 revised outputs.
10. The floor was then opened for discussion on any issues touched on by the previous speakers. A summary of the discussion follows:
11. Mr Tilia raised the issue of DFID subsistence rates which are currently at 30,000 U Shs/night. Mr Gregory informed the meeting that Mr Martin Leach in DFIDEA Nairobi has been looking into this and has recommended that the Project be allowed to use NARO or Government rates for seconded NARO or Government staff
12. Clarification for the study tour to Malawi was sought by Mr Ojacor. It was explained that this would not use Project funds and is being organised by another organisation; CTA. The UFFCA representative stated that their organisation had also received an invitation to send staff
13. ~~M~~ Magyembe was concerned that the high level of planned activity would make management of the Project difficult. Mr Gregory explained that the project is developing a sub-project system that ensures responsibility if allocated for all activities and progress regularly assessed at weekly meetings, thus avoiding the problem of activities being overlooked or becoming stagnated.
14. The issue of funding district level activities was discussed at some length. Mohammed was concerned that the project work in a way compatible with the current government funding system. It was agreed that some sort of conditional funding system, which insisted on a level of commitment from the District would be appropriate for the Project. Tying money to specific activities was also thought a useful way of ensuring accountability.
15. Problems with the water supply at kajjansi were discussed. In recent years the problem has been exacerbated by the Forestry Department, apparently, leasing out much of the surrounding watershed area to private woodlot producers and farmers whose practices have increased the speed of water runoff and silt loading. This is obviously a much more complex problem than first understood by most people. There was a need to look into improving the whole station water supply, rather

¹ Geographic Information System

than the current piecemeal work which attempts to get certain parts of the system to work.

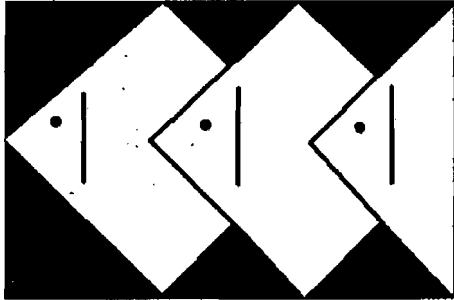
16. Dr Musisi, (MISR), raised the issue of the criteria to be used for the selection of farmers for on-farm trials. Simon explained that, whilst at present no rigid criteria had been agreed, the project would only select resource poor farmers that had access to ponds and who had attempted to do fish culture before. A serious effort would be made to ensure that these farmers were not selected on the basis of their connections and influence. Dr Musisi also asked whether the Project would be helping farmers dig new ponds or renovate old ponds, (which could, conceivably be a more expensive option). She also asked whether the initial trials would involve groups of farmers or just individual households. Mr Gregory replied that due to the nature of the trials, which was to prove to farmer and researcher alike that the proposed technology works, researchers would wish to retain an element of control over the trials and this would favour individuals rather than groups. The point was also made that participatory methods would be used to select the farmers for the first collaborative trials.
17. There were some concerns expressed that the baseline study of 2,500 households was a bit ambitious. In response, Simon Heck outlined the mechanisms in place for the collection and analysis of the data, which appear well conceived. The survey will utilise sub-county staff from the GoU and NGOs at all stages of the survey, which should be completed by February 2000.
18. The issue of formal agreements between NARO and MUK. and/or FTI was discussed at some length. The current 'umbrella MOU' between NARO and MUK does not include collaboration in the field of social sciences. It is therefore of little use to MISR. ~~W~~Wadunde thought that the MOU could actually be a disincentive to collaboration as staff working between institutions were only entitled to travel costs and lunch. Rick Gregory thought that under the current MOU umbrella, more specific collaborative activities between departments and projects needed to be agreed and clear resources allocation made.
19. Mr Gregory outlined the draft program for the coming Inception Mission in mid September. There was not a great deal of time available for the mission to meet all organisations represented at steering committee level and NARO, MAAIF, MUK and FTI would have to be prioritised as these were the institutions with which the Project has planned collaborative activities. It was agreed that the team would meet, Prof Mukiibi, Dr Magyembe and Mr Ojacor, (NARO), David Tilia, Peter Etot, Deo Mukiibi, (MAAIF), Dr Makanga and Dr Musisi, (MUK) and Janet Atim, (FTI). *Directly from*
20. The issue of local representation at steering committee level was discussed at some length. There was general agreement that it would be good if one

representative from each of the 4 zones could attend the meetings and that this representation could rotate. Whether the representation should be by a politician or a production officer/extension officer was discussed and it was agreed that the latter would probably be more appropriate. It was also agreed that zonal co-ordination meetings would be held in advance of the PSC Meetings at which progress could be collated, and a representative selected to attend the PSCM. Subsistence and travel entitlements would have to be spelled out.

21. The issue of the Assistant Professional Officer, CAPO) was discussed following further clarification of the idea from Rick Gregory and Simon Heck. The meeting whilst warm to the idea that this could enable the Project to make its baseline study, national, was not in favour of the Project being burdened with the additional costs that would accrue through the APO being housed in Kampala. Dr Musisi opined that if the east was considered that important, why not hire a local consultant to carry out the study, rather than an outsider. There were also concerns that stretching resources to the east could adversely affect Project implementation in the target zones. Rick Gregory said that he would pass on the feelings of the PSC to the inception mission next month.
22. Mr Gregory outlined the need for a mission statement to be agreed for the Project and collaborating institutions to ensure that objectives remained common. This is important given the social science v. technology leanings of some of the institutions represented. It was agreed that the recently produced National Fisheries MasterPlan, which apparently has 5 pages committed to aquaculture, would be a useful reference prior to a mission statement being drafted for the Third PSCM. It was also noted that NARO is currently involved in its own strategic planning process, out of which should come a clear mission statement for that institution.
23. The issue of NGO collaboration was discussed and the Project policy of looking at prospective partners from the field level up, rather than the national level down, reiterated.
24. Finally it was agreed by consensus that for the time being PSCM remain on a quarterly schedule rather than moving to a 6 monthly frequency as suggested by the Project staff.

The meeting closed at 18:20.

Minutes drafted by Rick Gregory, DFID.



NARO/MAAIF FISH FARMING PROJECT

Third Steering Committee Meeting Agenda

Kajjansi Fisheries Research Station

Tuesday 28th March 2000

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11:15	Progress Report: Oct 99 - March 2000, *
11:45	Discussion
12:30	Lunch: (Ranch on the Lake)
14:00	Presentation of 6 monthly Work-plan ✓
15:00	Discussion A
16:00	AOE Closing Remarks ✓

>Welcome Remarks
by OC

Round
by
Chairman
the Chair

Inter. Sec

minutes of last meeting