

**AFRICA REGION EXPERT PANEL MEETING
POND DYNAMICS/AQUACULTURE COLLABORATIVE RESEARCH PROGRAM**

**MONDAY, 8 JULY 2002
NAIROBI, KENYA**

The meeting started at 8:30 a.m. The program was followed as arranged prior to the meeting.

MEETING ATTENDEES PRESENT

Expert Panel Members: Jean-Francois Baroiller, Danie Brink, Nancy Gitonga, Fatma Hafez, Daniel Jamu, Justin Kouka, Mucai Muchiri, Kwamena Quagraine, Aboubacar Toguyeni, Stella Williams

Co-Moderators: James Diana and Kevin Fitzsimmons

Observer: Helena D’Cotta

Recorders: Christine Diana, Charles Ngugi, Gwyn Newcombe

OPENING COMMENTS (MODERATORS – KEVIN FITZSIMMONS AND JIM DIANA)

Kevin Fitzsimmons opened by welcoming the Africa Region Expert Panel. On behalf of PD/A CRSP Director Hillary Egna, who was unable to attend the meeting, he thanked panel members for their attendance and important contribution to the proposal planning process.

Fitzsimmons in brief explained the role of USAID in funding research in developing countries. The CRSP is a program that is centered on partnerships that carry out research with scientists from host country institutions and universities. A primary goal of the CRSP is to build the capacity of developing institutions through students and research. The CRSP’s focus has been on improving the livelihoods of small-scale farmers, not commercial producers. CRSP research deals with issues such as sustainability of aquaculture, global and regional constraints in aquaculture development, and environmental impacts.

Fitzsimmons explained and described why panel members were invited to attend the meeting. Panel members come from within the CRSP and outside the CRSP. Panel members were selected from across the continent and were selected based on geographical distribution and area of expertise (biology, engineering, and social sciences). Gender was also a consideration in selecting panel members. The goal of the Expert Panel meeting is to identify a list of researchable priorities for the CRSP for the Africa Region.

Introductions were made by meeting participants. Gwyn Newcombe was introduced and thanked for her efforts in organizing the 3-day meeting activities. Newcombe then reviewed the 3-day meeting itinerary.

Jim Diana introduced himself and reviewed the names of the Proposal Planning Executive Committee (PPEC). Other PPEC members are Hillary Egna, Kevin Fitzsimmons, and Danielle Clair. Diana presented background information on why the PPEC was established and what PPEC has accomplished to date.

The first CRSP Stakeholder Meeting was held in Honduras in August 2001 (reference was made to the Honduras Stakeholder Meeting Report in their packets). Following the Honduras Stakeholder Meeting, there was a Latin America and Caribbean Region Expert Panel Meeting held in February 2001 in San Diego, California. In April 2002, there was an Asia Region Expert Panel Meeting held in Beijing, China. Diana noted that because of language and geographical barriers in the Asia region, stakeholder meetings were not held. The Asia Expert Panel Members were provided with stakeholder information and research.

The Africa Region Expert Panel Meeting is the third expert panel meeting. Diana indicated that written stakeholder information/research for the Africa Region was extremely difficult to locate and apologized for the lack thereof. One reason may be that the practice of aquaculture in the Africa Region is not as prevalent as in other countries.

The input received from all the expert panel meetings, along with researchable aquaculture constraint information from the Eastern Europe/Central Asia regions, will assist the CRSP in writing a grant proposal to USAID for 2003-2008. A Request for Proposals (RFP) for the Eleventh Work Plan will be released 1 August 2002; the grant proposal will be accompanied by a proposed roster of projects and research investigations.

A brief background on CRSP involvement in Africa was presented.

Diana asked panel members to keep in mind that the primary purpose of the meeting is to identify constraints, then take it one step further and think about how those constraints can be framed as researchable priorities.

DEVELOP LIST OF CONSTRAINTS

Each panel member was asked to write down his or her top five constraints to aquaculture development while incorporating stakeholder constraints, constraints brought out in literature, and their expert knowledge of constraints. Diana then asked panel members to take turns to read and explain the constraints from their notecards. Fitzsimmons noted each constraint on flip charts.

PRIORITIZE LIST OF CONSTRAINTS

Each panel member was given 8 dots for use in identifying which constraints had the most importance or weight. The following is the list of identified constraints in the order in which panel members read from their notecards and then weighted its importance by affixing a dot. Note: Only 9 out of 10 people voted for a total of 72 dots.

LIST OF CONSTRAINTS TO THE DEVELOPMENT OF AQUACULTURE IN THE AFRICA REGION		
NUMBE R	CONSTRAINT	WEIGHT (DOTS)
1.	Lack of good extension services	5
2.	Lack of credit/funding	2
3.	Inconsistent development strategies with the needs of rural communities and households	2
4.	Lack of promotion and recognition of the role of women in aquaculture (extension, funding, land tenure, culture,	4

	traditions)	
5.	Negative promotion of aquaculture due to abandoned ponds (poor information leading to abandonment)	0
6.	Lack of quality, quantity, and timeliness of fry and fingerlings for stocking	6
7.	Limited access to input market and non-competitiveness of aquaculture	0
8.	Risk aversion in transition from subsistence to small commercial and lack of business skills/ acumen	0
9.	Inappropriate adoption and dissemination pathways	4
10.	Lack of awareness, proactive policy, and developmental framework of aquaculture	3
11.	Lack of policies on biosafety	1
12.	Lack of information and availability of affordable feed and feed research	1
13.	Poor pond management techniques	1
14.	Lack of information regarding agriculture by-products or non-traditional inputs for use in aquaculture fertilizers and feeds	0
15.	Need to study market supply and demands for aquaculture products and market development	5
16.	Lack of information on cost/ demand analyses (enterprise budgets, input-output models)	4
17.	Lack of information on the values of post-harvest technologies	0
18.	Lack of integrated water/ watershed utilization (quality and quantity)	6
19.	Lack of management technology for different strains (indigenous species) - domestication and stock enhancement	8
20.	Lack of information on socio-economic aspects of markets for indigenous species	1
21.	Lack of information for industrial aquaculture (trout and shrimp)	0
22.	Lack of information on environmental impacts of industrial aquaculture	0
23.	Lack of information on role of aquaculture in food security and economic growth	7
24.	Lack of human resource capacity (institutions, training)	5
25.	Need for privatization of seed production	0
26.	Weakness of the national aquaculture resource systems	1
27.	Poor knowledge and lack of integration of the role of aquaculture compared to other agriculture systems (feed, environmental effects)	0
28.	Lack of strong networking between researchers and users (in and between countries)	3
29.	Limited use of aquaculture to improve natural systems	2
30.	Lack of information on socioeconomic impact and requirements in areas to apply to aquaculture development	1

Eleven top constraints were identified as a result of the above constraints prioritization exercise. The group then reviewed and edited the 11 constraints. Below is a list of the prioritized constraints.

PRIORITIZED CONSTRAINTS IN CONSTRAINTS LANGUAGE		
NUMBER	CONSTRAINTS	WEIGHT
1.	Inadequate management technology for indigenous species <ul style="list-style-type: none"> • commercialization • domestication • stock enhancement • genetic characterization • genetic management • better use of biodiversity • socioeconomic and market information 	Was #19, #20
2.	Inadequate information on the role of aquaculture in food security and economic growth <ul style="list-style-type: none"> • impact assessment • development strategies • policy development • gender issues • competitiveness 	Was #23, #3, #10, #4
3.	Poor water resource management <ul style="list-style-type: none"> • watershed management • integrated utilization • culture based systems • integrated aquaculture / agriculture farming systems • pond management 	Was #18, #29, #27, #13
4.	Limited availability of seed <ul style="list-style-type: none"> • quantity and quantity • timeliness • government and private roles 	Was #6 , #25
5.	Inadequate research and development capacity <ul style="list-style-type: none"> • human resources • research networks • extension networks • extension packages, materials, and dissemination • institutions • education and training • national aquaculture research systems 	Was #24, #26, #1, #28, #9
6.	Insufficient knowledge of the economics of aquaculture <ul style="list-style-type: none"> • input-output models • business plans and risk analyses • enterprise budgets • supply and demand - market information and development • socioeconomic impacts • post harvest technology • HIV / AIDS 	Was #15, #16, #8, #30, #17, #7
7.	Lack of credit and funding	Was #2
8.	Lack of policy on biosafety	Was #11

	<ul style="list-style-type: none"> • environmental effects • disease • biodiversity conservation • GMOs • transfers and regulations • human health • feed residues 	
9.	<p>Inadequate information, development, and availability of affordable feed</p> <ul style="list-style-type: none"> • agricultural by-products • nutritional requirements • least cost feeds • low-impact feeds • medicated feeds 	Was #12, #14
10.	<p>Inadequate information for industrial aquaculture</p> <ul style="list-style-type: none"> • environmental impacts • economic impacts • technology transfer 	Was #21, #22
11.	<p>HIV / AIDS impact on aquaculture</p> <ul style="list-style-type: none"> • human resource impacts • human health/nutrition aspects • human migration 	New

NOTE: Constraint #5 was dropped completely while all others were combined with other constraints as noted above.

DISCUSS RESEARCHABLE PRIORITIES ARISING FROM CONSTRAINTS AND DEVELOP LIST OF RESEARCHABLE PRIORITIES

The next group exercise involved identifying research topics for each of the 15 constraints. Panel members broke out into three groups. They were given 4 to 5 constraints to discuss and then asked to list researchable topics on each constraint. Results were recorded on the flip chart pages and then displayed the page above the constraint. The group as a whole then reviewed/edited/added to the researchable topic lists.

RANK RESEARCHABLE PRIORITIES

Panel members were given 5 dots to mark which researchable priorities had the most importance or weight. The following table contains the final list of researchable priorities.

RESEARCHABLE QUESTIONS		
NUMBER	RESEARCHABLE PRIORITY	WEIGHT (DOTS)
1.	<p>Inadequate management technology for indigenous species</p> <ul style="list-style-type: none"> • Determine genetic characteristics of indigenous species • Evaluate aquaculture potential of new indigenous species (including biology and socio-economics) 	10 (Was #5 constraint)

	<ul style="list-style-type: none"> Identify and improve tilapia and African catfish strains having characteristics for aquaculture Determine management policies for domesticated and wild stocks 	
2.	<p>Insufficient knowledge of the economics of aquaculture</p> <ul style="list-style-type: none"> Develop sector reports Develop enterprise budgets and business plans for agriculture <ul style="list-style-type: none"> needs good production and cost data address the issue of credit Conduct sensitivity and risk analysis for aquaculture businesses Evaluate the markets' access and development Develop post-harvest technologies aimed at adding value to aquaculture products Evaluate the impact of HIV / AIDS on aquaculture 	7 (Was #3 constraint)
3.	<p>Poor water resource management</p> <ul style="list-style-type: none"> Describe watershed management issues as related to aquaculture, particularly focusing on competing water uses Identification of aquaculture opportunities for integrated water utilization Develop best management practices to minimize the impacts of aquaculture on water quality and quantity Develop models to estimate sustainable aquaculture capacity of a watershed 	7 (Was #4 constraint)
4.	<p>Inadequate information on the role of aquaculture in food security and economic growth</p> <ul style="list-style-type: none"> Determine the current and potential role of aquaculture in economic development Determine international market for species indigenous to Africa and current role, future role, and constraints of African production (situation and outlook report) Review pre-existing small scale agriculture policies as precursors to aquaculture commercialization Describe gender issues in aquaculture Define the strategies, policies, and role of aquaculture for economic development and food security 	6 (Was #1 constraint)
5.	<p>Inadequate research and development capacity</p> <ul style="list-style-type: none"> research: Identify critical resource areas, training needs, assessment and structuring of networks and a database extension: Evaluate impacts of existing networks - identify strengths and weaknesses extension: Create a database - recommend improved dissemination pathways and collaborative networks training: Assess and define a balance of training/education programs that include research extension and practical training programs 	6 (Was #2 constraint)
6.	Limited availability of seed	5

	<ul style="list-style-type: none"> • Conduct a feasibility study for investment in hatchery and nursery facilities for quality seed availability throughout the year • Assess the effectiveness of existing services in seed production • Evaluate production methods for increased quality seed availability 	(Was #6 constraint)
7.	<p>Inadequate information, development, and availability of affordable feeds</p> <ul style="list-style-type: none"> • Assess the use of agricultural and industrial by-products as feed ingredients • Evaluate the use of least-cost, low-impact, and medicated feeds based on nutritional requirements • Explore the use of non-traditional ingredients in feed formulation 	5 (Was #9 constraint)
	<p>Lack of credit and funding</p> <ul style="list-style-type: none"> • Develop sector reports (regional/species/category) that consolidate information <ul style="list-style-type: none"> ○ technology and services provision ○ market and economic data ○ production and economic statistics ○ growth potential ○ constraints and risk analysis 	Moved (Was #7 constraint)
8.	<p>Lack of policy on biosafety</p> <ul style="list-style-type: none"> • Conduct a survey of applicable import/export requirements and human health issues and make recommendations for incorporation in regional or national policy regulations 	2 (Was #8 constraint)
9.	<p>Inadequate information regarding industrial aquaculture</p> <ul style="list-style-type: none"> • Assess information related to industrial aquaculture from other geographical regions • Evaluate environmental issues related to industrial aquaculture 	2 (Was #10 constraint)
	<p>HIV/AIDS impact on aquaculture</p> <ul style="list-style-type: none"> • Describe the impact of HIV/AIDS on aquaculture development in Africa 	Moved (Was #11 constraint)

NOTE: Researchable priorities #7 and #11 were incorporated into others and were eliminated.

CLOSING COMMENTS

Diana thanked panel members for their participation. He noted that this group debated constraints much more than previous panels, making his role a bit more challenging! The Program Management Office (PMO) will send a copy of the final report from this meeting to each expert panel member. Diana reminded panel members to look for the release of the RFP for Work Plan on 1 August 2002.

Fitzsimmons reviewed with the panel the LAC and ASIA expert panels' prioritized listing of researchable constraints.

**POND DYNAMICS/AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM
AFRICA REGION EXPERT PANEL MEETING
NAIROBI, KENYA**

Safari Park Hotel
Monday, 8 July 2002

8:00 AM	REGISTRATION
8:00 ~ 8:30 AM	OPENING COMMENTS Moderators ~ Jim Diana and Kevin Fitzsimmons <ul style="list-style-type: none">• Preamble• Introductions• Ground Rules
8:30 ~ 10:00 AM	DEVELOP LIST OF CONSTRAINTS Incorporate stakeholder constraints, constraints brought out in literature, and expert knowledge of constraints
10:00 ~ 10:30 AM	PRIORITIZE LIST OF CONSTRAINTS
10:30 ~ 10:50 AM	COFFEE BREAK
10:50 ~ 12:00 PM	DISCUSS RESEARCHABLE PRIORITIES ARISING FROM CONSTRAINTS
12:00 ~1:00 PM	WORKING LUNCH ~ LUNCH WILL BE PROVIDED
1:00 ~ 2:00 PM	ENTIRE GROUP DISCUSSES AND DEVELOPS LIST OF RESEARCHABLE PRIORITIES
2:00 ~ 3:00 PM	RANK RESEARCHABLE PRIORITIES
3:00 ~ 3:30 PM	CLOSING COMMENTS Moderators ~ Jim Diana and Kevin Fitzsimmons

POND DYNAMICS/AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM
AFRICA REGION EXPERT PANEL MEETING ~ NAIROBI, AFRICA
8 JULY 2002

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**AFRICA REGION EXPERT PANEL MEETING
3-DAY ITINERARY**

MONDAY, 8 JULY 2002

EXPERT PANEL MEETING

Breakfast at Hotel

8:00 am - Registration/Coffee - Mt. Kenya D Room

12:00 pm - Lunch served

3:30 pm - Meeting adjourned

Dinner on your own

TUESDAY, 9 JULY 2002

SAGANA FISH FARM TOUR

Breakfast at Hotel

8:15 am - Meet in Lobby

8:30 am - Depart Safari Park Hotel via bus to

Sagana Fish Farm

Tour Sagana Fish Farm

12:00 pm - Picnic lunch

Return to Safari Park Hotel by 5:00 pm

Dinner on your own

WEDNESDAY, 10 JULY 2002

MOI UNIVERSITY TOUR

5:00 am - Meet in Lobby

5:00 am - Depart Safari Park Hotel via Hotel Shuttle to NBO

7:00 am - Depart NBO for Eldoret (Flamingo Airlines Flight 660)

8:00 am - Board Moi University van to Moi University

8:20 am - Breakfast, University Guest House

Visit Moi University

12:30 pm - Lunch, University Guest House

Tour fish farm under construction

5:30 pm - Board Moi University van to EDL

6:20 pm - Depart EDL for Nairobi (Flamingo Airlines Flight 663)

7:20 pm - Return to Safari Park Hotel via Hotel Shuttle

Dinner on your own