

#383

DEVELOPMENT OF SUSTAINABLE AQUACULTURE PROJECT

A project implemented by ICLARM-The World Fish Center

Funded by the
U.S. Agency for International Development (USAID)
(Cooperative Agreement 388-A-00-00-00068-00)

WORK PLANS for the year 2002

Prepared by

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1. INTODUCTION

The Development of Sustainable Aquaculture Project (USAID Cooperative Agreement #388-A-00-00-00068-00) became operational since 1 October 2000 and will run through 31 July 2005. The overall goal of the project is to improve household incomes and livelihoods of resource limited people who take advantage from appropriate aquaculture technologies and to bring to market increased aquaculture products to offset a declining fish supply. The intermediate goals are (i) to increase the number of small enterprises producing freshwater aquaculture products on a sustained basis, (ii) to refine appropriate aquaculture technologies and technology transfer pathways and (iii) to build up capacity that will enable the cooperating NGOs to promote aquaculture practices even in the absence of external support.

The achievements against the activities planned for 2001 are summarized in attachment 1. The experiences of the first year of implementation of aquaculture demonstrations have been evaluated with our partner NGOs through individual meetings with these partner NGOs and an evaluation workshop held on 22 January 2002. According to the lessons learned it was decided to emphasize the following in the forthcoming years:

At the households level

- The quality of the technical support in particular during the first year;
- The use of participatory approaches for the dissemination of the selected technologies;
- The integration of the promoted aquaculture practices into the other agricultural subsystems of the household;
- The spread over effect of the technologies to interested neighbor farmers.

At the NGO level

- The elaboration of a partnership: the project should support the development and implementation of the NGO's aquaculture support programs;
- Flexibility within the commonly identified guidelines; allowing NGOs to implement their program according to their own established approaches, and;
- Transparency: both at the ICLARM-NGO interface as well as at the NGO-Beneficiaries interface.

This approach that gives more responsibility to the NGOs, also gives them more operational latitude. Consequently this approach requires a closer monitoring system of NGO program performance and financial management. For more details please see technical progress report January – March 2002.

2. PLANNED ACTIVITIES

General areas of activity and specific main activities are outlined below including time-line diagrams for their implementation. Targets for 2002 are provided in attachment 2.

2.1. <u>Technology Transfer</u>

Initiate 7000 on-farm production demonstrations through cooperating NGOs:

- A. Identify and select 8-10 new partner NGOs for the 2002 demonstration program;
- B. Finalize work plans including time charts for implementation of activities and budgets of the selected 25-30 partner NGOs for the 2002 demonstration program;
- C. Finalize a Memorandum of Agreement with the new cooperating NGOs that reflects the terms of our cooperation keeping in view the USAID guidelines;
- D. Provide necessary training and technical support to cooperating partner NGOs in particular 25-30 project coordinators and 140-150 extension workers (trainers);
- E. Revise/simplify the pond record book to facilitate collection of basic data for and by participating farmers and their families. Provide these pond books and other materials for these farmers such as training handouts and sign boards to NGOs in a timely manner;
- F. Organize 8 DSAP field offices throughout the country from where research assistants will provide technical backstopping and monitoring to the NGO partners;
- G. Organize monthly 8 regional coordination meetings with partners and other concerned stakeholders as well as two-monthly national NGO coordination meetings;
- H. Design and conduct a NGO transparency and monitoring survey to identify the level of services provided by the NGOs and the content of agreements that NGOs have with their participating farmers;
- I. Revise/simplify the DSAP guidelines in a participatory manner with our partners for implementing demonstrations through cooperating NGO partners;
- J. Conduct and facilitate an evaluation workshop with NGO partners at the end of the year 2002.

2.2 Research

Support adaptive and applied aquaculture research:

- A. Review the technology packages as currently offered in the light of experiences of last 2001 demonstrations and recent research findings;
- B. Analyze and report the results on data collected (pond books) from aquaculture development efforts of 2000 and 2001;
- C. Finalize collecting of data, analysis and reporting of economic impact survey initiated last November 2001;
- D. Monitor and evaluate the impact and adoption of the technology transfer using the ICLARM RESTORE software for participatory farming systems studies and other participatory evaluation techniques;
- E. Assist BFRI in getting an approved TAPP for collaborative research and, upon approval, prepare and implement a detailed work plan to sponsor specific applied research studies related to the aquaculture practices of participating farmers;
- F. Sponsor approximately six small research projects with the Bangladesh Agricultural University or other entities related to specific topics of interest;
- G. Design and conduct an impact assessment of all completed research grants;

2.3. Training

In addition to the training and technical support of contracted NGO partners the following efforts are to be implemented:

- A. Prepare a detailed training program including all the training courses, workshops planned for 2002;
- B. Select NGOs from the regions covered for the non-contracted partner NGO program;
- C. Provide necessary training and technical support to non-contracted NGO partners, in particular project coordinators and extension workers (trainers);
- D. Monitor the implementation of demonstrations by these partners and assess their impact;
- E. Conduct and facilitate an evaluation workshop with associated NGO partners at the end of the year 2002;
- F. Specific training programs and/or workshops targeting fish hatchery and nursery operators (these may be done in collaboration with BFRI);
- G. Arrange specific training/workshops directed to fish seed and fingerling peddlers;

2.4. Administration

- A. Complete and submit required reports and financial accounting in a timely manner. Attachment 1 shows an anticipated budget 2002 and overall budget;
- B. Ensure smooth financial support to partner NGOs and conduct or commission audits for some partner NGOs. A list of all current NGOs recruited as cooperating partners in implementing the demonstrations in 2002 is given in attachment 2;
- C. Organize regular staff meetings to ensure smooth implementation of project activities. A time line schedule of activities planned in this work plan is represented in attachment 3;
- D. Complete and maintain an effective staff and personnel management system according to ICLARM's rules and regulations for nationally recruited staff, including the recruitment of (1) a new senior aquaculture consultant (NGO coordinator) in replacement of Prof. A. Islam who's contract terminated end of February 2002 and (2) a research associate (farming systems) to strengthen efficient and efficacious dissemination of technologies and NGO activities. Attachment 4 gives the names of current staff:
- E. The monitoring and evaluation activities, which are outlined in a separate report, will be followed. This includes collecting data for reporting to USAID to assist them in preparing their progress reports;
- F. Participate as a member of the overall Bangladesh aquaculture scientific community, providing technical advice to USAID, Government institutions and other partners as requested, interacting and collaborating with other aquaculture development efforts, etc.

STAFFING

One of the mayor lessons learned from last years experience is that the support to farmers was limited to" top-down" technical advice. Furthermore, some 15-20 new partner NGOs will to be recruited in future, of which 10 this year and the support to associate —partner NGOs will be completed by on-the-spot training for their senior field staff. Therefore

ICLARM-The World Fish Center proposes to create of 8 field liaison offices to increase and to improve the support/advice to our cooperating partners i.e. both partner and associate-partner NGOs (see page 2) and to recruit of two persons to complete the team of Extension Officers. These regional field offices will also facilitate/improve the collaboration with and between regional stakeholders including with colleagues from DoF.

As per the Cooperative Agreement and developed in the present work plan, ICLARM will study indicators for successfully adoption of alternative aquaculture technologies and the impact of these technologies on farm income, social and economic profitability, and household food security following the detailed monitoring of selected non-participating (control) and participating (experimental) households. The effect of integrated natural resource management research on overall farm productivity will also be studied. This important, statistically sound impact assessment proposes to study some 400 households over a period of 3-4 years. ICLARM's experience with similar studies in other developing countries indicates the need for 8 Research Assistants to collaborate in a participatory with the selected farmers and to collect, entry and analyze the required data. Due to the size of this study and the required accuracy of the collected data ICLARM propose to recruit.

ATTACHMENTS

Attachment 1. Achievements against activities planned for 2001

Attachment 2. Targets for activities planned for 2002

Attachment 3a. Projected budget for FY2002 and overall project life

Attachment 3b. Quarter wise projected budget for FY2002

Attachment 4. NGOs participating in the 2002 demonstration program

Attachment 5. Time-Activity Chart for 2002

Attachment 6. Current DSAP staff

Attachment 7. International Travel Plans

Attachment 1 Achievements against activities planned for 2001

Activities Planned for 2001	Achievements 2001
A comprehensive report of the activities and accomplishments of the project just completed will be prepared and presented in a national forum early in 2001.	- Activity cancelled because of non-reliability of feed back from supported farmers in the 2001 final reports presented by the NGOs. 2000 pond books filled out by the NGO field workers are being analyzed; report expected June 2002.
At least 7,000 new on-farm demonstrations will be in progress under the cooperative NGO program. This will be done with appropriate participatory processes and performance monitoring. Following the detailed monitoring of selected non-participating (control) and participating (experimental) households, the impact of alternative aquaculture technologies on farm income, social and economic profitability, and household food security will be analyzed. Cooperative research activities will be sponsored with BFRI that will target production systems and fish genetics work. On-farm trials and specific research with National Universities will be continued.	 - 109 field workers (91 field assistants and 18 project coordinators) from 18 NGOs were trained (one foundation and two follow-up training). 25 % of them has abandoned their jobs due to low wages; - 6,608 new farmers were identified and on-farm aquaculture demonstrations in pond or flooded rice paddies were supported; - Approximately 100 field-days/rallies were organized for interested neighbors (for year 2000 demonstrations); - First part of data collection for year 2001 impact survey accomplished (second to be completed in March-May 2002). - Implementation of collaborative research program with BFRI delayed due to delay in obtaining approval for TAPP; - Six small research grants were awarded to researchers from Universities. The topics includes: ° Improved preservation of freshwater prawn Macrobrachium rosenbergii; ° Value-added products from silver carp; ° Utilization of Azolla in rice cum fish culture; ° Ecology of euglenophytes in fish culture ponds; ° Economic analysis of supplementary feed based fish culture;
Besides training NGO trainers, additional training programs will be organized for hatchery/nursery operators, fish fry/fingerling peddlers and small NGOs wanting to get involved with aquaculture development activities.	 Study on Inbreeding effects in Thai pangas (Pangasius sutchi). 76 senior NGO staff received 5-day training courses in the suitable, affordable and farmer friendly aquaculture technologies developed by ICLARM and partners.

Attachment 2 Targets for activities planned for 2002

Activities Planned for 2002	Targets for 2002
At least 7,000 new on-farm demonstrations will be in progress	-Partner NGOs have identified and implemented their aquaculture extension
under the cooperative NGO program. This will be done with	programs, which are partly financed by the NGOs;
appropriate participatory processes aiming sustained aquaculture	- 108 new field workers (93 field assistants and 15 project coordinators) from 26
	NGOs trained (one foundation and two follow-up trainings);
	-Two follow-up trainings for 72 field workers (60 field assistants and 12 project coordinators) from 14 NGOs organized;
	- 7,000 new farmers identified for on-farm aquaculture demonstrations in pond or flooded rice paddies by partner NGOs;
	- Aquaculture production of 13,000 farmers (6,000 identified 2001 and 7,000 in 2002) supported by partner NGOs targeting a total value of sales (sales growth) of 2 million USD;
	- Approximately 55% of direct beneficiaries will be men (i.e. 7,150) and 45% women (5,850); number of indirect beneficiaries targeted is 65,000 (average 5 persons per household);
	- Approximately 140 and 280 field-days/rallies organized for interested neighbors for respectively year 2001 and 2002 demonstrations;
	- More than 6,000 secondary adopters of 2001 demonstrations (spread-over effect ¹);
	- 8 field liaison offices organized to provide technical backstopping and monitoring of the cooperating NGOs;
	- Support materials for farmers (revised pond books, sign boards) and NGO field staff (training manual, Sechi discs) prepared and distributed;
	- A NGO transparency survey conducted and analyzed;
	- DSAP guidelines revised in a participatory process;
	- An evaluation workshop with NGO partners organized and documented.

¹ Projected spread-over effect for each demonstration: 1 after 1st year of extension (40%), 3 after 2nd year (80%) and 5 after 3rd year (100%)

Attachment 2 Targets for activities planned for 2002 (continued)

Activities Planned for 2002 (continued)	Targets for 2002 (continued)
The impact of alternative aquaculture technologies on farm income, social and economic profitability, and household food security will be studied following the detailed monitoring of selected non-participating (control) and participating (experimental) households. Cooperative research activities will be sponsored with BFRI that will target production systems and fish genetics work. On-farm trials and specific research with National Universities will be continued.	prepared and implemented; - Six small research grants awarded to researchers from Universities;
Besides training NGO trainers, additional training programs will be organized for hatchery/nursery operators, fish fry/fingerling peddlers and small NGOs wanting to get involved with aquaculture development activities.	foundation training course in the suitable, affordable and farmer friendly

Attachment 3.a Projected budget for FY2002 and overall project life (in US dollars)

	FY 2001	FY/2002	FY 2003	FY 2004	FY 2005	Total
1. Managent					·	:
A. Senior staff	180,495	240,626	240,626	240,626	240,626	1,143,000
B. Operations	59,433	52,642	52,642	52,642	52,642	270,000
Sub-total 1	239,929	293,268	293,268	293,268	293,268	1,413,000
2. Demos support						
A. Grants	180,824	480,000	535,000	480,000	380,000	2,056,000
B. Training	7,654	10,087	10,087	10,087	10,087	48,000
C. Monitoring	32,666	29,334	29,334	29,334	29,334	150,000
Sub-total 2	221,143	519,420	574,420	519,420	419,420	2,254,000
3. Research	5,796	104,801	104,801	104,801	104,801	425,000
4. Training	7,321	29,182	29,182	29,182	29,182	124,050
5. Commodities	13,410	12,954	4,318	2,159	2,159	33,250
Total direct costs	487,600	959,625	1,005,989	948,830	848,830	4,251,050
Indirect costs	143,257	281,938	295,560	278,766	249,386	1,248,958
Grand Total	630,856	1,241,563	1,301,549	1,227,596	1,098,216	5,500,008

FY 2001: reported expenditures FY 2002-2005: projected expenditures

Attachment 3.b Quarter wise projected budget for FY2002 (in US dollars)

	FY 2001	இப்பார் பூ	Quarter 2	.Quairers	Quarter 4
1. Managent					
A. Senior staff	240626	60,157	60,157	60,157	60,157
B. Operations	52,642	13,160	13,160	13,160	13,160
Sub-total 1	293,268	73,317	73,317	73,317	73,317
2. Demos support					
A Grants	480,000	90,000	140,000	180,000	70,000
B. Training	10,087	2,522	2,522	2,522	2,522
C. Monitoring	29,334	7,333	7,333	7,333	7,333
Sub-total 2	519,420	99,855	149,855	189,855	79,855
3. Research	104,801	10,480	31,440	31,440	31,440
4. Training	29,182	7,296	7,296	7,296	7,296
5. Commodities	12,954	1,295	9,068	1,295	1,295
Total direct costs	959,625	192,243	270,976	303,203	193,203
Indirect costs	281,938	56,481	79,613	89,081	56,763
Grand Total	1,241,563	248,724	248,724	392,284	249,966

Attachment 4 NGOs participating in the 2002 demonstration program

SI.	NGO	oldFA	new FA	Totals FA	PC	Demos	Kenarks
1	ADI	5	2	7	1	350	Contractive to the second
2	BAIC	4	3	7	1	350	1
3	Padakhep	1	4	5	1	250	1 FA from Rasdo, new PC
4	BS	5	2	7	1	350	
5	CARITAS	8	0	8	2	400	1 new PC
6	CARP	3	2	5	1	250	
7	CIRUP	3	2	5	1	250	
8	CRED	5	2	7	1	350	
9	FHD	2	3	5	1	250	new PC
10	JC	5	2	7	1	350	
11	ORD	5	0	5	1	250	2 FA + 1 PC from ARSCHI
12	PRANTEC	3	2	5	1	250	
13	SATU	1	4	5	1	250	1 FA + 1PC from RASDO
14	RRC	3	4	7	1	350	
15	SPP	2	4	6	1	300	new PC
16	TMSS	2	5	7	1	350	new PC
17	LDRO	3	2	5	1	250	2 FA from TMSS
Sub t	otal-l	60	43	103	18	5150	
18	OREDAR	-	5	5	1	250	new PC
19	SARA	•	5	5	1	250	new PC
20	VPKA	-	5	5 5 5 5	1	250	new PC
21	DMG	-	5	5	1	250	new PC
22	PAGE	-	5		1	250	new PC
23	PP	-	5	5	1	250	new PC
24	ACD	-	5	5 5 5	1	250	new PC
25	DJKS	-	5	5	1	250	new PC
26	COAST Trust	-	5	5	1	250	new PC
27	BUK	-	5	5	1	250	new PC
	otal-II	0	50	50	10	2500	
Gran	d total	60	93	153	28	7650	是不是多数的工厂

Attachment 5 Time-activity chart for 2002

SI	Activity	19	t Quart	er	2nd Quarter			3rd Quarter			4th Quarter		er	Remarks
no	·	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	
ī	Technology transfer:													
A	Identify and select new partner NGOs (2202 and 2003 program)	$- \sqrt{3} $												
В	Finalize work plan and budget of partner NGOs (2202 and 2003 program)		1										加热	<u> </u>
С	Finalize MoA with new partner NGOs			19	平						·			
D	Provide necessary training and technical support to contracted NGO ¹	10 Y 32	S. Sales	基本情報的										On going
Е	Provide revised pond record books, sign boards and training hand outs to partners			7,70,72										
F	Organize and manage 8 field liaison offices			OF THE	图测	7.00							SERVE	On going
G	Organize regular regional and national NGO coordination meetings			i.ii	भ 🕄			2 3	1.3	Ī.	鼠		2	
Н	Design and conduct a transparency and monitoring survey							र्जन्य		7.00		<u></u>		
I	Revise/simplify DSAP guidelines in participatory manner with partner NGOs			l		- 1.1 <u>A</u> 22								
J	Conduct and facilitate evaluation work shop with contracted NGO partners					<u></u>			<u></u>		<u> </u>	<u>. </u>	<u> </u>	<u> </u>
	Research:													
	Review the technology packages in light of experiences of 2001 program				<u> </u>	<u> </u>	<u> </u>				ļ	<u> </u>	<u> </u>	
	Analyze and report data from 2000 and 2001 pond books		医原因				是安慰的				ļ		ļ	ļ
С	Finalize collecting data, analyze and report economic impact study 2001	İ	ł	1.25								<u> </u>		
D	Monitor and evaluate impact and adoption technology transfer (RESTORE)					18.2					200 X			On going
Е	Assist BFRI for finalization of TAPP and work on specific research studies			ļ		1:3		1:2						On going
F	Sponsor small collaborative research projects with Universities		e			11.33		可通到						On going
G	Design and conduct impact assessment of all completed research grants												1	
Ш	Training:										_			
Α	Prepare detailed training program 2002		全流性	1										
В	Select NGOs for the non-contracted partner NGO program													<u></u>
С	Provide necessary training and technical support to non-contracted partner NGOs1							医透镜						On going
D	Monitor the implementation of demonstrations of to non-contracted partner NGOs						<u> </u>				arya.	<u> </u>		<u> </u>
E	Conduct evaluation workshops with non-contracted NGO partners		1							<u> </u>		<u> </u>		ļ
F	Specific training programs and/or workshops for hatchery and nursery operators				<u> </u>					<u> </u>		<u> </u>		<u> </u>
G	Arrange specific training/workshops directed to fish seed and fingerling peddlers		1				l		<u>l</u>	<u> </u>	<u> </u>			<u> </u>
īv	Administration:													
A	Complete and submit required reports and financial accounting							/江灣舊						
В	Ensure smooth financial support to contracted NGO partners	ر منابع									3 個旗	9		i
С	Organize regular staff meetings) <u>[</u>	Ĭ					3	Ŋ.			1
D	Complete and maintain effective staff												推新到	
E	Monitor and evaluate activities, including data for reporting to USAID						Stall Stall							
F	Represent USAID/ICLARM to aquaculture scientific and development community	100	100	5 (4) (5 p) (4)	建 等。	1 N. 3	CAND.		17.0	計劃開聯	可能管理			On going

see training program 2002 for details

ATTACHMENT 6 USAID-funded staff list as of June 2002

No	Name of Staff	Position	Date Employed
1	Drs. Johannes Janssen	Senior Aquaculture Scientist/	01 September 01
	Des C.M.d. Fandous Alama	Project Leader NGO Coordinator/Researcher	01 July 01
2	Prof. Md. Ferdous Alam	Field Coordinator IAA	01 June 02
3	Naseem Aleeem		15 December 99
4	Hasan Ahmmed Chowdhury	Research Associate	l
5	Dr. Khondker Murshed-e-Jahan	Research Associate/Fellow	24 January 01
6	Kh. M Shameem Kamal	Research Assistant	01 July 99
7	Manuara Azim	Research Assistant	01 July 99
8	Mohammad Abdul Latif Siddique	Research Assistant	11 March 01
9	Md. Jahirul Hoque	Research Assistant	11 March 01
10	Mohammed Mokhlesur Rahman	Research Assistant	11 March 01
11	Bijan Mazumder	Research Assistant	11 March 01
12	Md. Mamunor Rashid	Research Assistant	20 May 01
13	Md. Abul Kashem	Research Assistant	20 May 01
14	Md Nazim Uddin	Extension Officer	29 May 02
15	Md Abdur Razzaque	Extension Officer	29 May 02
16	Syed Arifuzzaman	Extension Officer	29 May 02
17	Mir Mostaque Ahamed	Extension Officer	29 May 02
18	Reza Md Ali Kareem ²	Office manager	10 Feb. 02
19	Bijoy Bhushan Debnath	Administrative Officer	01 May 90
20	Khan Golam Rasul	Accounts Officer	01 June 96
21	Md. Billal Hossain	Data Entry Operator	01 August 99
22	Ms Maksuda Khanam	Data Entry Operator	01 May 02
23	Md. Abdur Razzak	Driver	01 May 89
24	Md. Dulal	Driver	01 May 99
25	Md. Nazrul Islam	Driver	01 October 01
26	Tapan Chandra Sarker	Messenger	01 July 93
27	Md. Idris Ali ³	Messenger	01 June 98
28	Md. Abdul Wahab³	Messenger	01 September 98
29	Md. Mahade Hasan Babul ³	Messenger	01 July 01

Costs shared by ICLARM HQ (50%); CBFM (25%) and DSAP (25%)
 Costs shared by CBFM (50%) and DSAP (50%)

Attachment 7 International Travel for 2002

The Project has provision for international travel support for project staff, consultants, and Bangladesh scientists, generally restricted to attend meetings or study tours within the Asian region.

Dr. Mark Prein, program leader Freshwater Resource Research Program (FRRP), from headquarters is programmed to visit the DSAP project on a quarterly basis to ensure technical backstopping and smooth implementation of the project.

Dr. F. Alam, Research coordinator, is scheduled to participate and to present a paper on Aquaculture and poverty alleviation in Bangladesh at the World Aquaculture Conference in Bejing, April 2002. Mr Johannes Janssen, project leader is also expected to attend the annual ICLARM in-house scientific review in Penang usually scheduled for September and the conference "Fish for all" during the Center's 25th anniversary commemoration planned for late November 2002.

We have scheduled a training workshop on participatory monitoring using RESTORE tools and approaches for the impact assessment study by ICLARM's RESTORE specialists in June 2002 at our Dhaka office. The trainers/facilitators identified for this workshop are Dr. Mark Prein, aquaculture specialist and one of concept makers of this research approach; Ms Teresita S. Lopez, participatory monitoring specialist and principal RESTORE trainer; and Mr Ferdinand Paraguas RESTORE programmer. Ms. Lopez who has left ICLARM-The World Fish Center recently, is available for this consultant mission.

A mission of Dr. Madan Dey, socio-economist at ICLARM head Quarters is scheduled to review the DSAP activities with regards to the impact assessment study as well as the income, social and household food security surveys.

Mr Johannes Janssen, project leader, his wife and daughter are programmed to travel to France for annual home leave in June 2001 (Mrs. Janssen and daughter) in July (Mr Janssen).

We expect to send ICLARM Bangladesh new Office Manager, Mr. K. Kareem to headquarters for briefing and coordination related to the financial and personnel management of ICLARM. 25% of the cost of this trip is to be taken in charge by DSAP.

As other international travel requests may develop, they will be considered on a case-to-case basis. The approval of USAID for all planned international travel will be sought in advance where justified.