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INTRODUCTION

The Development of Sustainable Aquaculture Project (DSAP) was authorized by USAID under the Cooperative Agreement # 388-A-00-00-00068-00 on 28 June 2000. This technical progress report covers activities for the three months of the project, 1 April 2004 through 30 June 2004. Financial reporting for the Project is handled separately from the WorldFish Center (also known as ICLARM-International Center for Living Aquatic Resource Management) headquarters in Penang, Malaysia.

The main thrust of the Development of Sustainable Aquaculture Project is to sponsor on-farm aquaculture production demonstrations implemented through co-operating NGO partners. These demonstrations are expected to show farmers and their neighbors the profitability of managed aquaculture systems as small business enterprises. Both small ponds and integrated rice and fish systems, based on research-proven production results, are the target of these demonstrations. The Project also has a research component directed to understanding and exploring alternative production options, improving the technology dissemination process and monitoring the impact of the adopted aquaculture practices.

This quarterly technical progress report covers (i) the annual evaluation of the associate-partner NGOs program, (ii) the analysis of the beneficiaries of the 2004/05 technology dissemination program (beneficiaries survey), (iii) collection of data of the performance survey 2003/04 (verification of pond record books), (iv) the selection for small research projects, (v) the implementation of the project assessment (or mid-term review) and (vi) the finalization of the Recipient Contracted Audit (RCA) 2000-2002.

Details about the support of on-farm demonstrations, research, training and administrative actions are presented in the respective sections of this report.

DEMONSTRATIONS AND NGO ACTIVITIES

The partner NGOs (33) responsible for the implementation of the 2004/05 demonstration program finalized the selection of the new demonstration sites/households. As confirmed during the national NGO evaluation workshop 2003, the partners first introduced themselves to the villagers, organized meetings with local leaders and sensitized the interested villagers regarding the program and its potential benefits, in particular in respect to innovative technologies such as rice cum fish culture and fish nursery practices. Then the selection was conducted following a participatory approach using different tools such as transects, resource mapping, wealth ranking etc. Selection of families following the Whole Family Approach was compulsory to reflect the implication of different household members (male/female and adults/children) in the process of uptake innovative technologies and to increase effectively the participation of women in the program. The organization of 6-10 selected demonstrators/families per village in Demonstration Farmer Groups (DFG) was strongly promoted allowing secondary adopters to enter the groups. During the selection process efforts were made to avoid clustering of demonstrations ensuring optimal farmer-to-farmer spread over. Like in the previous years, the partner NGOs made a written or verbal three-year agreement with selected families reflecting clearly the responsibility of each of the concerned parties.

Following the different foundation and follow-up training courses on monitoring and evaluation, the partner NGOs assessed the new Demonstration Farmer Groups (DFG) as well as those of 2002/03 and 2003/04, whose members are presently receiving extension services in the third (phase-out) and second (consolidation) year respectively.

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A total of 11,304 new demonstration sites were selected for the 2004/05 program, covering a total production area of more than 1,550 ha and participating families/farmers are organized in 1,450 Demonstration Farmer Groups (cf. attachment 1). Nearly all the DFGs have in fact between 6-10 members (mean 8).

Attachment 2 presents information about the selected technology groups, which indicates that 72.2% are pond based culture systems, while 27.8% are rice-fish based systems. Shares of carp polyculture, nursery and carp-golda (freshwater prawn) systems of total new demonstrations are 79.0, 14.2 and 5.9% respectively. Even though the selection of rice-fish and nursery systems still does not meet the targets in particular for the latter (30% rice-fish and 20% nursery), these two innovative technology groups are, compared to last year, increased by 52% (from 18.3 to 27.8%) and 42% (from 10.0 to 14.2%) respectively. This clearly confirms the positive correlation between the quality of the selection (or the NGO commitment and willingness to perform) and the degree of achievement of the set targets.

In the last aquaculture season 35 partner NGOs provided extension services to 24,971 participating demonstrators (13,046 belonging to groups selected in 2002/03 and 11,925 selected in 2003/04) organized in 2,315 DFGs. This year 33 partners continue supporting 17,407 demonstration farmers as well as 22,083 new members of 2,174 DFGs (cf. attachment 3, 4 and 5). These new group members are secondary adopters who became members of the aquaculture groups to learn more from their fellow farmers as well as to benefit from the extension services from the NGO field workers in the second and third year of extension support provided by the NGOs. To capture the spread over we had requested the DFGs to report the number of secondary adopters in their villages (beneficiary survey). In total the 2004/05 program is supporting 50,794 farmers/families organized in 3,624 farmer groups of which 28,711 are demonstration farmers and 22,083 are secondary adopters.

The NGO and number-wise geographical distribution of aquaculture demonstrations of the 2004/05 extension program, are illustrated in figures 1 and 2 respectively (cf. attachments 6 and 7). The evolution of demonstrations implemented and supported each aquaculture season since the inception of the project as well as the number of years of extension received by cooperating farmers/families are shown in attachments 8-10. Full details of the partner NGOs, the newly selected demonstrations, carried over ones, selected technology groups according NGO and region (District, Upazilla, Union) or technology group etc. are given in the DSAP-NGO directory 2004 (cf. working paper 2004/34).

Meanwhile support to partner NGOs through (i) on-the-job training of NGO staff, (ii) frequent field visits to support different NGO activities such as group meetings, annual evaluations, rallies/farmer field days, cross visits and fish harvest/marketing, (iii) attending partners' extension program meetings and (iv) national/regional coordination meetings continued as usual during the reporting period.

Fish harvesting of the 2003/04 aquaculture season is completed. The partner NGO field workers, assisted by the Research Assistants (Extension), continued to provide valuable advice and support for the proper use of the pond record books as harvests proceeded. NGOs implemented group meetings, rallies and cross visits as scheduled. Currently all partner NGOs have completed the foundation training of the new demonstration families using the Whole Family Approach. A total of 32,672 people, of which 44% women (adults and children), were trained. Full details of the attendance of different household members will be provided in the next progress report. Follow-up trainings for the 2002/03 and 2003/04 demonstration farmers are on-going and are expected to be completed during the next quarter. Partner NGOs commenced the distribution of about 40,000 pond record books to all group members (demonstrators and secondary adopters) and signboards were prepared and

distributed to all new demonstration families/farmers through the Center's regional field offices.

As per approved work plans 2004 the cooperating partner NGOs are committed to conduct at least 748 rallies/farmer field days to promote improved aquaculture practices to interested neighbors. In order to reduce the workload of the field staff at the end of the calendar year the partners are encouraged to organize rallies throughout the year. Therefore, 56 rallies were organized in collaboration with DFGs selected in 2002 or 2003 allowing an attendance of 2,593 villagers, of which 32% were women. The remaining rallies are scheduled to be conducted during the second semester 2004. For the same reason 63 cross visits were organized by the partner NGOs enabling 919 demonstrators (24% female participants) to visit fellow farmers implementing innovative practices such as fingerling production and integrated rice cum fish production.

Following the participatory training course on tilapia (GIFT strain) fingerling production last January (cf. technical progress report Jan. – March 2004), 198 farmers supported by 17 partner NGOs produced fingerlings in the 2003/04 boro season. The performance assessment of this activity is ongoing and results will be reported in next progress report. As preparation for the next season (i.e. boro 2004/05) 20,000 fingerlings were purchased from BFRI and distributed to cooperating farmers to replace existing brood stock.

Funds for the 2nd quarter were released to 32 out of 33 partner NGOs of the 2004/05 extension program. Release of funds to SARA is subject to their providing supporting documents of a financial report for April-June 2004. Full details of the funds release status are provided in attachment 11. As a result of the external audit financial reports are currently rigorously verified and checked before releasing funds for the following quarter. This is done in order to improve the quality of the financial reports and to avoid unnecessary delay of funds release. The project accountant has carried out 7 financial support missions during the reporting period in order to improve the financial management and reporting of our partners.

As reported in the previous progress report (Jan-March 2004), the work plans and budget of two partner NGOs (CIRUP and OREDAR) are approved on a quarterly basis according to satisfactory improvement of their performance. Following a visit of field activities and reviewing their April-June program, the work plans and budgets for the third quarter 2004 (July-September) of these two partner NGOs were approved.

In respect to the 'social' studies undertaken since last year (cf. previous progress report), the data regarding the financial and institutional capacity building of partner NGOs (2001 to 2003) were analyzed and the major outcomes presented at different national and international events. Data collection of the current year is ongoing as planned. Case studies to investigate the institutional development of the aquaculture farmer groups and the fish farmer's subsidy and micro-credit were identified and designed. Data collection is scheduled for the second semester 2004.

A one-day annual evaluation meeting with associate-partner NGOs was held in Dhaka on 5 May 2004. Representatives from 51 out of 55 invited associate-partners attended this second national evaluation meeting. The meeting unanimously decided to hold such national evaluation meeting twice per year instead of once. All partners insisted to continue and expand their aquaculture extension program in 2004. The project confirmed to organize foundation training courses (3 batches) and refresher courses (2 batches) for field staff of associate-partners. In addition, the project will explore the opportunity of organizing a training course on "monitoring and evaluation" subject to availability of sufficient financial and human resources. Furthermore, it was decided to invite associate-partner NGOs to attend

the regional coordination meetings organized every two months for partner NGOs and regional stakeholders.

RESEARCH

Impact assessment of adopted aquaculture practices

Year 2002-2003 data: The results of this survey were published as Working Paper 2004/30 entitled "Profiles of Aquaculture Demonstrations Practiced under the Development of Sustainable Aquaculture Project 2002/03" showing performances of the grant and non-grant supported partner NGOs as well as associate-partner NGOs.

Ex-post impact assessment 2000-2001: The data of this impact study were verified and rearranged. Complementary analyses were carried out and the final report will be produced by the end of December 2004 as planned.

Year 2003-2004 data: In order to assess the performance of the aquaculture practices 2003/04 the NGO staff conducted the annual performance survey by sampling about 10% of the demonstration farmers and using the data from the pond record books. At the end of the reporting period we had received data from 27 out of 33 partner NGOs. It is expected that the rest of the NGOs will complete this task by mid July. Data verification and entry was initiated and will be completed by mid August and preliminary results will be available by the end of September 2004.

Year 2004-2005 data: The partner NGOs conducted the beneficiaries survey 2004/05 simultaneously with the performance survey 2003/04 (see above). Data entry for 27 NGOs is ongoing and the database of this year's end-users will be completed by July 2004 with data from all 33 partners. The results of this survey will be published in the DSAP-NGO Directory 2004 (Working Paper 2004/34) by August 2004.

Long-term Impact Monitoring (RESTORE): The data of the RESTORE farmers of the baseline study (2002/03) and the first year of project intervention (2003/04) has already been collected by the Research Assistant (M & E). The data of the 2003/04 aquaculture season were processed and submitted. Data entry, verification and analysis are scheduled for August-October 2004 and the first interim report is due by the end of December 2004.

Supplementary studies: Two supplementary studies conducted on the RESTORE farmers are: (i) consumption survey, and (ii) livelihood survey were initiated in August and October 2003 respectively. Data generation, compilation as well as data entry and verification are progressing smoothly. Data collection of the first year will be completed by July 2004. It was decided to continue these two studies for another year in order to confirm impact of improved farm production on livelihoods of rural poor.

Data management and database systems: A national consultant (Mr. Goutam Chandra Dhar) was engaged to convert all existing aquaculture data in a common format (MsAccess). Assistance from an international consultant is foreseen in October 2004 before initiating the development of a functional multi disciplinary data management and analysis tool for aquaculture data.

Collaborative Research with BFRI

BFRI submitted the annual research progress reports 2003-2004 for the following studies undertaken during the period from July 2003 to June 2004 (i.e. GOB fiscal year):

- Low cost agro-based fish feed trials on carp and catfish in the field condition;
- Refinement of aquaculture technologies through NGO;

- Nursery management of local catfish (Shing: *Heteropneustus fossilis* and Magur: *Clarias batrachus*)
- Development of mass seed production techniques of climbing perch/koi (*Anabas testudineus*);
- Impact of small indigenous species (SIS) on livelihood of local fishing communities in two Upazillas in Mymensingh;
- On-farm adoption of freshwater pearl culture;
- Identification of causes of *Pangasius* mortality in farmer's pond, their rational control measures and awareness development of farmers on fish health management;
- Farming system research and demonstration;
- Seed production of Genetically Improved Farmed Tilapia (GIFT) in brackish water environment.

Summaries of these studies as well as the research plans for 2004-2005 are currently under preparation and will be presented in the next progress report.

Research Grants to Universities

During the meeting of the Technical Research Selection Committee on 13 April, 9 new research grants out of 20 short listed proposals (cf. Attachment 12) were awarded and agreements between the Research Awardees and the project were signed. The new awardees started their research activities from 1st June 2004. The status of research grants awarded and the funds released so far is presented in the same attachment. Altogether 28 small research grants were awarded, 12 were completed and 16 are ongoing. No new grants will be awarded until the end of the project (i.e. 31 July 2005).

During the reporting period the following final reports were received:

- "Development of low cost feed ingredients for culture of freshwater prawn (*Macrobrachium rosenbergii*) in ponds by rural farmers of the Bangladesh" by Prof. Dr. Arshad Hossain
- "Livelihoods of the carp seed traders of Bangladesh" by Mr. Mahmud Hassan

The first final report was distributed among interested stakeholders (Universities, Research Institutions, GoB, projects, private sector etc.). The distribution of the second report, being a component of a comprehensive two-year PhD study, was withheld.

TRAINING

During the reporting period from 1 April to 30 June 2004 the following training course was organized according to the annual training plans (cf. work plans FY2004):

- A 3-day foundation training course on "**Principles of aquaculture, Technology packages, Extension methodologies, and Facilitation techniques**" was organized for one batch of associate-partner NGO newly recruited staff on 28-30 June 2004 in Mymensingh; In total 25 staff members from 23 associate-partner NGOs participated in the training program facilitated by project staff.

The cash prizes of the participatory action and learning (PAL) competition, organized jointly with the Support to Freshwater Aquaculture (SUFA) program in Vietnam funded by Danida and the Government of Vietnam, were handed over to awardees (cf Attachment 13). Both projects edited selected and adapted, if needed, existing/submitted PAL sessions to be published in a PAL manual related to freshwater aquaculture. A national consultant (Mr.

Aminur Rahman) prepared ten PAL sessions on different technical and non-technical topics to be included in this manual (cf. Attachment 14).

ADMINISTRATION

The list of project personnel as of 30 June 2004 is attached (cf. Attachment 15). The Center, with assistance from an international management consultant implemented the following changes of administrative positions during the reporting period:

- Mr. Salim Reza¹, Project Administrator (previously Office Manager) joined on 1 April;
- Mr. Bijoy Bhusan Debnath¹, Administrative Officer was promoted to Public Relations Administrator effective 1 April;
- Ms. Shahzadi Khanam², Project Secretary, joined on 17 May;
- Ms Famida Ahmed², receptionist was promoted to Project Secretary effective 18 April;
- Mr. Anwar Noor , driver, joined on 4 April 2004;
- Ms Asma Rahman², receptionist joined on 20 June.

Dr. Ferdous Alam, Research Coordinator, resigned on 17 May. The responsibility to coordinate the research activities was taken over by Dr. Khonder Murshed-E-Jahan, Senior Research Associate and an advertisement was placed to recruit a second Senior Research Associate to complete the Monitoring and Evaluation team.

An exit meeting through teleconference of the Recipient Contracted Audit was organized on 1 April 2004 with representatives of USAID/Dhaka, WorldFish/Dkaka, WorldFish/Penang and KPMG/Penang. The final report of this audit, covering the period from October 1, 2000 to December 31, 2002 and including updated management comments was finalized and submitted to USAID/Dhaka on 18 June 2004.

WorldFish organized an external project evaluation or mid-term review from 10 May to 10 June 2004. Two consultants were recruited: Prof. M.A. Sattar Mandal, Socio-economist Consultant and Team Leader and Mr. Gopal Chowhan, Rural development specialist. The GoB nominated the following three representatives: Mrs. Ayasha Begum, Senior Assistant Chief, MoFL, Dr. G. Sarwar, Deputy Chief, Planning Commission and Mr. A.N.M. Rukon Uddin, Deputy Director, IMED. The key objectives of this review were (i) to review the performance of the DSAP to-date to assess for the project's impact toward achieving its goals and objectives, (ii) to assess the future directions including a possible continuation of the collaboration between USAID and the WorldFish Center to assist in the further development of the aquaculture sector in Bangladesh and to help improve the livelihood of resource limited rural households and (iii) to make necessary suggestions and recommendations for the remaining period of the project.

The project provided support to the national review team as requested and organized two one-day field trips to Gazipur and Comilla on 12 and 18 May respectively for preliminary discussions with partners, beneficiaries and field testing. Field work in Mymensingh, Magura and Jessore regions for meetings with partners and end users as well as for generating data was organized from 19 to 27 May. Arrangements were made for separate field trips by a USAID team, comprising Mr. Harry Rea, International Consultant, Mr. Latifur Rahman, CTO and Mr. McDonald Homer, Team Leader, Enterprise Development to Mymensingh and Jessore on 23 and 25 May respectively.

¹ Charged 25% to DSAP

² Charged 50% to DSAP

A meeting was organized on 30 May allowing the review team, the USAID consultant and WorldFish staff including Dr. Mark Prein, Program Leader, WorldFish, Malaysia to exchange field observations and findings of the different field trips. The review team presented preliminary findings to a limited audience (USAID, WorldFish) on 1 June and an official debriefing workshop was held on 6 June (USAID, WorldFish other stakeholders/partners). The review team shared and debated its major findings with all partner NGOs during the national coordination meeting organized on 17 June. The final report of the project assessment (mid-term review) including the comments and suggestions of all concerned key partners was submitted on 15 July 2004.

The newly appointed Director General of the WorldFish Center, Dr. Stephen J. Hall visited Bangladesh from 20 to 24 June 2004. During this mission he visited the Bangladesh Fisheries Research Institute (BFRI) and DSAP field activities in the Mymensingh region. He also met a delegation of colleagues from USAID during a courtesy visit on 22 June 2004.

The usual assortment of meetings, visitors and field visits were attended during this quarter. The most important were:

1. Mr. Naseem Aleem and Ms. Israt Zahura participated in a two-day workshop on "Tilapia development in Bangladesh: Constraints and Potentials" organized by BAU (Dr Wahab) and AIT (Dr Bart) at BRAC Center Mohakhali in Dhaka on 5 - 6 April 2004; Research topics relevant to the development of tilapia in Bangladesh were identified;
2. Mr. Johannes Janssen participated in an Executive Committee meeting of the Bangladesh Fisheries Research Forum on 13 May. BFRF constitution was approved; transfer of administration and secretariat from SUFER (closing in July) to WorldFish was discussed;
3. Mr. Anisur Rahman visited two partner NGOs in Comilla region (Shristy, PP) on 18 and 19 May; and three in Rashjahi region (BAIC, DJKS, POSD) from 8 to 10 June for a one-day financial and administrative support mission;
4. Mr Salim Reza, Project Administrator participated in the Finance Management retreat organized by the Office of Finance Management, USAID/Dhaka on 19 May at Paradise Garden Hotel, Dhaka;
5. Mr. Harry Rea, USAID, Washington and Dr. Mark Prein, Program Leader, WorldFish, Malaysia participated in the mid-term review from 19 to 30 May and 28 to 30 May respectively (cf. this report);
6. Dr. Pramod Tripathi and Dr. Philip Mathew, Consultants from Pragati Foundation, India visited Bangladesh from 22 to 27 May for data collection for "Study for Leadership programme" commissioned by CGIAR/WorldFish;
7. Dr. Benoy K. Barman attended the workshop on "Key findings socio-economic impacts and livelihood outcomes" of DFID/SUFER funded research at BRAC Center, Mohakali on 27 May;
8. Mr. Naseem Aleem visited Mymensingh on 13-15 June to make arrangements for field visit of DG, WorldFish scheduled for 21 June;
9. Mr. Johannes Janssen and Dr. K.M.E. Jahan visited PAGE and PP field activities in Comilla on 15-16 June and held meeting with NGO management as well as DSAP field staff to review the progress of work plans 2004;
10. Prof. Indira J. Parikh, Consultant from Indian Institute of Management, visited the Center from 20 to 22 June and held individual meetings with staff in respect their perceptions of cultures and values of the Center;

11. Dr. David Little, University of Stirling, UK, Dr. Graham Mair, University of Flinders, Australia and Dr. Elizabeth Harrison, University of Sussex, UK together with project staff, participated in a five-day meeting and field visit on “Decentralized seed production strategies” in Mymensingh and Dhaka from 28 June to 2 July;
12. Dr. Kuperan Viswanathan participated in the Annual Research Review Workshop of BFRI on 29 June at BARC, Dhaka.

ATTACHMENTS

- Attachment 1** **New demonstrations of 2004/05 season implemented by partner NGOs**
- Attachment 2** **Number and area of new demonstrations 2004/05 according to selected technology groups**
- Attachment 3** **Status of 2002/03 demonstrations in 2004/05 season**
- Attachment 4** **Status of 2003/04 demonstrations in 2004/05 season**
- Attachment 5** **Status of demonstrations implemented in 2004/05 (Carried over + new DFG members + new demos)**
- Attachment 6** **Geographical distribution of aquaculture demonstrations supported by the WorldFish-NGO aquaculture extension effort 2003/04 (NGO-wise)**
- Attachment 7** **Geographical distribution of aquaculture demonstrations supported by WorldFish-NGO aquaculture extension effort 2003/04 (number-wise)**
- Attachment 8** **Evolution of demonstrations implemented since project inception**
- Attachment 9** **Evolution of supported demonstration farmer groups and members (demonstration and secondary demonstration farmers) since project inception**
- Attachment 10** **Extensions services received by cooperating farmers since project inception**
- Attachment 11** **Status of 2004 budgets and funds release to partner NGOs as of 30 June 2004**
- Attachment 12** **Status of research projects with the Universities as of 30 June 2004**
- Attachment 13** **Handing over cash prizes PAL competition**
- Attachment 14** **Participatory Action Learning sessions prepared by national consultant, Mr. Animur Rahman**
- Attachment 15** **USAID-funded staff list as of 30 June 2004**

Attachment 1 New demonstrations of 2004/05 season implemented by partner NGOs

Sl. No.	NGO	No. of District	No. of Taluqa	No. of demos	Demo area (ha)	No. of DfCs	Technology group
1	ADI	4	6	450	13,371	46	A,B,C,D,E
2	BAIC	2	4	450	21,841	45	A,B,E
3	BS	5	9	450	13,565	60	all
4	BUK	2	5	350	15,464	50	A,B,E
5	CARP	1	3	350	10,405	35	A,B,E
6	CDS	1	3	250	11,563	35	A,B,E
7	CIRUP	2	8	300	6,782	36	A,B,E
8	COAST	1	7	351	14,327	38	A,B,C,E
9	CRED	3	5	450	12,520	54	A,B,D,E,
10	DJKS	1	3	353	12,128	39	A,B,E
11	FHD	2	3	300	9,440	30	A,B,D,E,
12	GRAMAUS	2	2	250	6,580	35	A,B,D,E,
13	GRASUK	3	5	251	6,664	35	A,B,E
14	ISWA	4	5	250	4,493	32	all
15	JC	1	4	450	25,326	63	A,B,F
16	LIPP	1	1	250	9,163	37	A,B,E
17	LUSTRE	1	2	250	7,649	31	A,B,E
18	ORD	2	3	300	8,820	40	A,B,D,E
19	OREDAR	2	4	353	11,555	45	A,B,E
20	PAGE	1	6	346	15,746	35	A,B,E
21	POSD	1	4	250	6,668	31	A,B,E
22	PP	1	3	253	11,892	25	A,B,E
23	PRANTEC	2	3	350	7,743	41	A,B,D,E
24	PROSHIKA	5	12	644	22,680	94	all
25	RRF	6	11	450	18,648	66	A,B,E,F
26	SARA	1	5	350	12,814	49	A,B,D,E,
27	SATU	1	6	300	11,809	47	A,B,E
28	SHRISTY	1	2	253	12,956	35	A,B,E
29	SHUSHILAN	2	3	250	5,314	35	A,B,C,D,F
30	SPP	1	7	400	13,448	49	A,B,E
31	TMSS	4	15	450	10,996	66	A,B,E
32	VPKA	1	3	350	6,168	56	A,B,D,E
33	WE	1	2	250	5,380	35	B,E
Total	33	36*	130*	11,304	383,918	1,450	-

*Total may not add due to overlapping operations

**Technology group code:

- A -Nursery management practices in ponds
- B - Polyculture of carp in ponds
- C - Polyculture of carp and golda in ponds
- D - Nursery management practices in paddy/plots
- E - Polyculture of carp in paddy/plots
- F - Polyculture of carp and golda in paddy/plots

Attachment 2 Number and area of new demonstrations 2004/05 according selected technology groups

Technology group	Pond based systems			Rice field based systems			Total		
	No.	Area (dec)	%	No.	Area (dec)	%	No.	Area (dec)	%
Nursery practices	1,529	44,397	13.5	78	5,362	0.7	1,607	49,759	14.2
Carp polyculture	6,513	186,033	57.6	2,522	108,350	22.3	9,035	294,383	79.9
Carp-golda polyculture	122	2,922	1.1	540	36,854	4.8	662	39,776	5.9
Total	8,164	233,352	72.2	3,140	150,566	27.8	11,304	383,918	100.0

Attachment 3 Status of 2002/03 demonstrations in 2004/05 season

Sl.no	NGO	2002		2003					2004				
		DFG	Demos	DFG	Dropout demo	Remaining Demos	New members	Total	DFG	Dropout demos	Remaining demo	members	
1	ACD	35	250	Discontinued					Discontinued				
2	ADI	50	350	50		350	84	434	50		350	226	576
3	BAIC	41	350	41		350	350	700	41		350	523	873
4	BS	40	350	40		350	353	703	40		350	349	699
5	BUK	29	250	29		250	508	758	29		250	932	1182
6	Caritas	17	401	Discontinued					Discontinued				
7	CARP	35	250	35		250	253	503	35		250	510	760
8	CIRUP	35	250	35		250	240	490	35		250	532	782
9	COAST	29	250	29	5	245	497	742	29	5	245	539	784
10	CRED	49	350	49		350	318	668	49		350	481	831
11	DJKS	35	253	35	9	244	125	369	35	9	244	492	736
12	DMG	32	250	32	20	230	57	287	Discontinued				
13	FHD	35	250	35	7	243	317	560	35	7	243	326	569
14	JC	35	350	35		350	341	691	35		350	350	700
15	LDRO	29	250	29		250	307	557	Discontinued				
16	ORD	35	250	35		250	401	651	35		250	398	648
17	OREDAR	29	250	29		250	254	504	29		250	531	781
18	PADAKHAP	35	250	Discontinued					Discontinued				
19	PAGE	35	250	35	59	191	237	428	35	59	191	427	618
20	PRANTEC	33	250	33		250	604	854	33		250	591	841
21	PP	34	250	34	16	234	115	349	34	16	234	566	800
22	RRF	46	350	46		350	521	871	46		350	529	879
23	SARA	35	250	35	23	227	253	480	35	23	227	428	655
24	SATU	32	250	32		250	48	298	32		250	251	501
25	SPP	39	300	39		300	80	380	39		300	203	503
26	TMSS	51	350	51		350	169	519	51		350	385	735
27	VPKA	25	250	25		250		250	25		250	223	473
Total	27	955	7,654	868	139	6,614	6,432	13,046	807	119	6,134	9,792	15,926

Attachment 4 Status of 2003/04 demonstrations in 2004/05 season

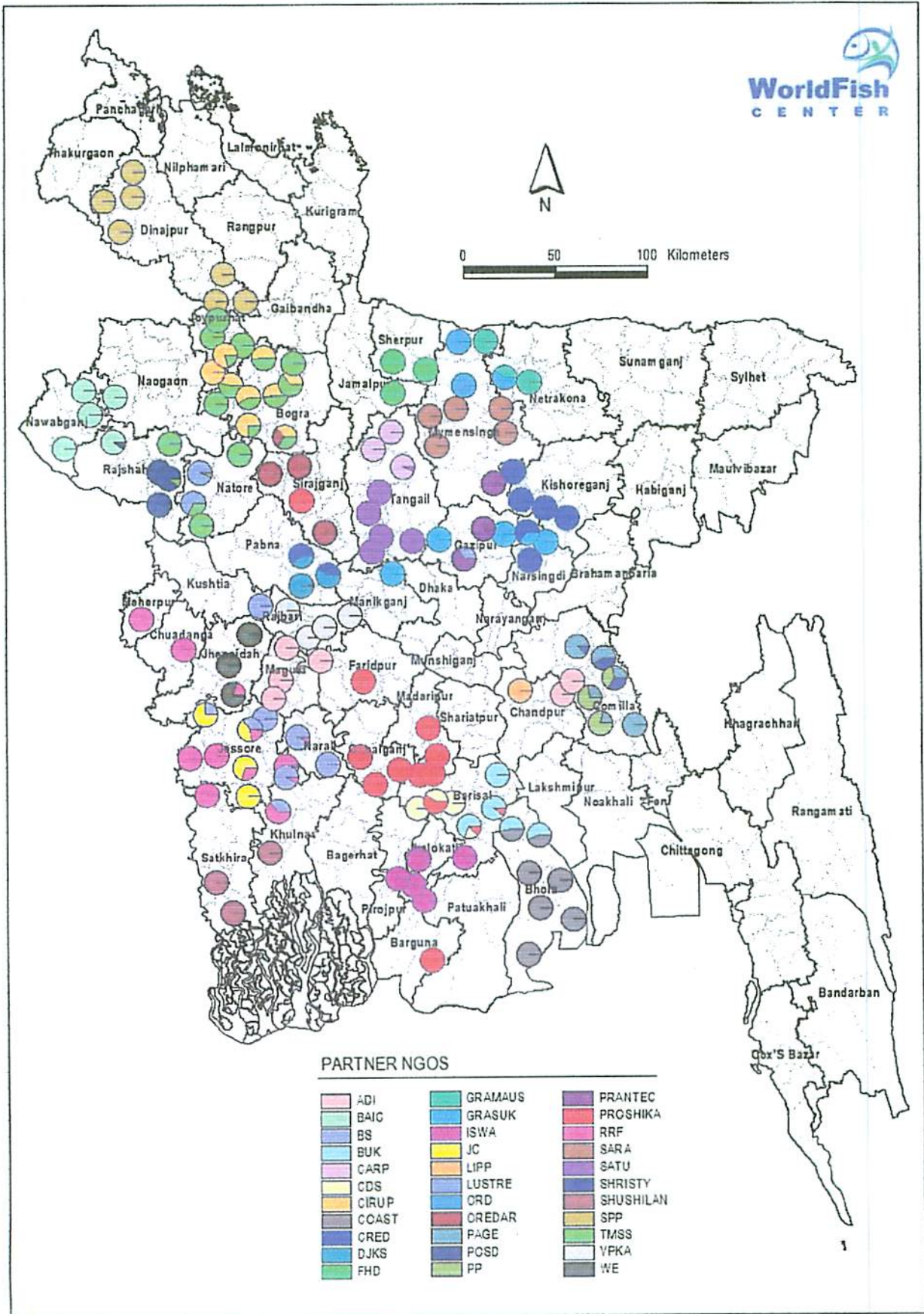
Sl. No.	NGO	2003		2004			Total
		DIC	Demo	DIC	Demo	New members	
1	ADI	47	450	47	450	59	509
2	BAIC	61	450	61	450	450	900
3	BS	45	450	45	450	449	899
4	BUK	49	350	49	350	757	1,107
5	CARP	42	350	42	350	518	868
6	CDS	34	250	34	250	316	566
7	CIRUP	37	300	37	300	271	571
8	COAST	39	350	39	350	681	1,031
9	CRED	54	450	54	450	463	913
10	DJKS	43	350	43	350	352	702
11	DMG	45	352	Discontinued			
12	FHD	36	300	36	300	347	647
13	GRAMAUS	35	250	35	250	74	324
14	GRASUK	37	250	37	250	107	357
15	ISWA	31	250	31	250	413	663
16	JC	45	450	45	450	450	900
17	LDRO	35	300	Discontinued			
18	LIPP	29	252	29	252	216	468
19	LUSTRE	30	250	30	250	532	782
20	ORD	40	300	40	300	688	988
21	OREDAR	41	350	41	350	461	811
22	PAGE	47	354	47	354	376	730
23	POSD	33	250	33	250	499	749
24	PP	26	263	26	263	469	732
25	PRANTEC	47	350	47	350	598	948
26	PROSHIKA	91	601	91	601	247	848
27	RRF	45	450	45	450	450	900
28	SARA	39	350	39	350	399	749
29	SATU	36	300	36	300	304	604
30	SHRISTY	25	253	25	253	81	334
31	SHUSHILAN	27	250	27	250	54	304
32	SPP	48	400	48	400	257	657
33	TMSS	64	450	64	450	314	764
34	VPKA	35	350	35	350	367	717
35	WE	29	250	29	250	272	522
Total	35	1,447	11,925	1,367	11,273	12,291	23,564

Note: No drop out farmers in 2004

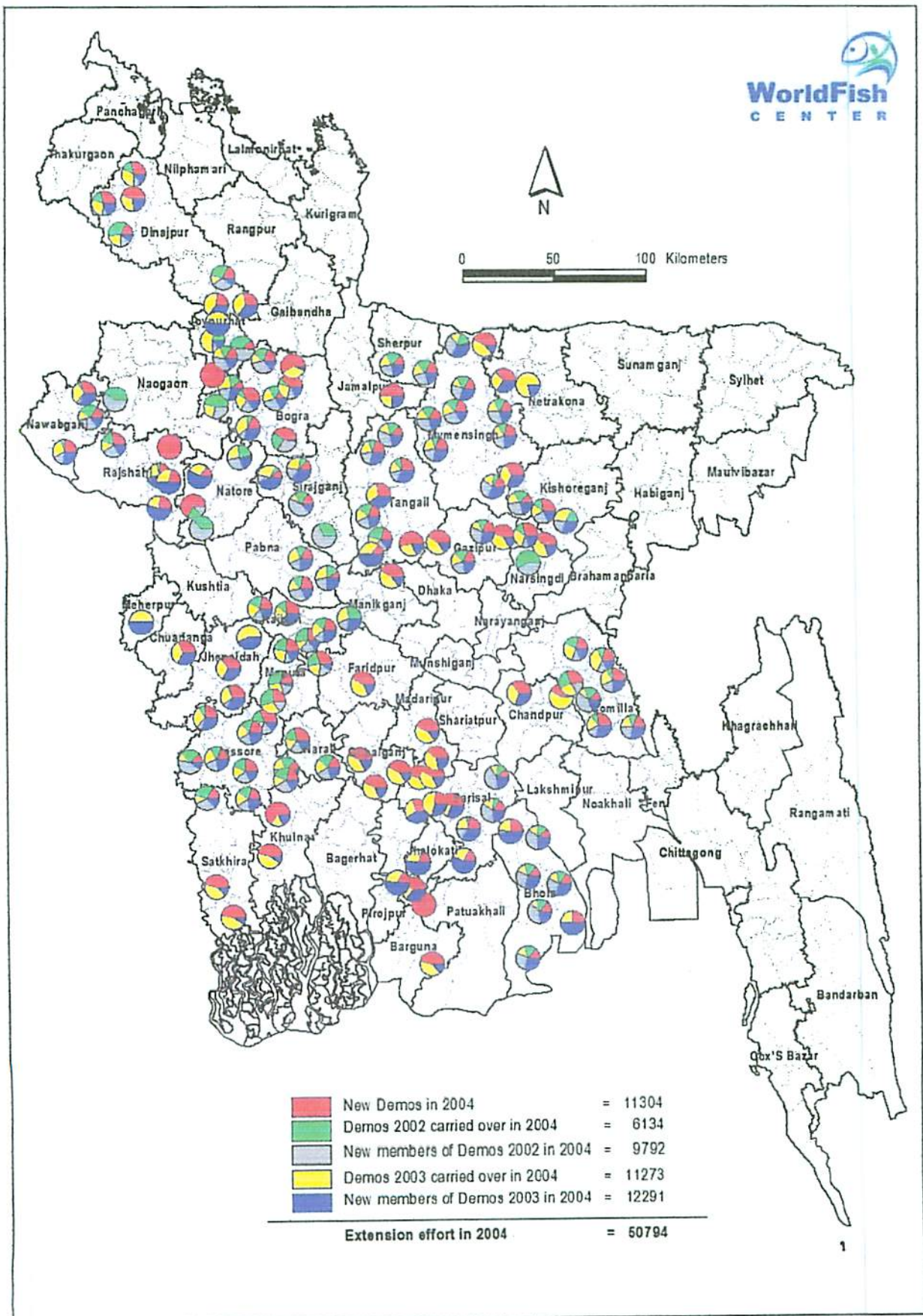
Attachment 5 Status of demonstrations implemented in 2004/05 (Carried over + new DFG members + new demos)

Sl. No.	NGO	New demos 2004/05	Carried over demos		New DFG members			Total demos 2004/05
			2002	2003	2002	2003	Total	
1	ADI	450	350	450	226	59	285	1,535
2	BAIC	450	350	450	523	450	973	2,223
3	BS	450	350	450	349	449	798	2,048
4	BUK	350	250	350	932	757	1,689	2,639
5	CARP	350	250	350	510	518	1,028	1,978
6	CDS	250	0	250	0	316	316	816
7	CIRUP	300	250	300	532	271	803	1,653
8	COAST	351	245	350	539	681	1,220	2,166
9	CRED	450	350	450	481	463	944	2,194
10	DJKS	353	244	350	492	352	844	1,791
11	FHD	300	243	300	326	347	673	1,516
12	GRAMAUS	250	0	250	0	74	74	574
13	GRASUK	251	0	250	0	107	107	608
14	ISWA	250	0	250	0	413	413	913
15	JC	450	350	450	350	450	800	2,050
16	LIPP	250	0	252	0	216	216	718
17	LUSTRE	250	0	250	0	532	532	1,032
18	ORD	300	250	300	398	688	1,086	1,936
19	OREDAR	353	250	350	531	461	992	1,945
20	PAGE	346	191	354	427	376	803	1,694
21	POSD	250	0	250	0	499	499	999
22	PP	253	234	263	566	469	1,035	1,785
23	PRANTEC	350	250	350	591	598	1,189	2,139
24	PROSHIKA	644	0	601	0	247	247	1,492
25	RRF	450	350	450	529	450	979	2,229
26	SARA	350	227	350	428	399	827	1,754
27	SATU	300	250	300	251	304	555	1,405
28	SHRISTY	253	0	253	0	81	81	587
29	SHUSHILAN	250	0	250	0	54	54	554
30	SPP	400	300	400	203	257	460	1,560
31	TMSS	450	350	450	385	314	699	1,949
32	VPKA	350	250	350	223	367	590	1,540
33	WE	250	0	250	0	272	272	772
Total	33	11,304	6,134	11,273	9,792	12,291	22,083	50,794

Attachment 6 Geographical distribution of aquaculture demonstrations supported by WorldFish-NGO extension effort 2003/04 (NGO-wise)



Attachment 7 Geographical distribution of aquaculture demonstrations supported by WorldFish -NGO aquaculture extension effort 2003/04 (number-wise)



Attachment 8 Evolution of demonstrations implemented since project inception

Particulars	NGO	Demonstrations		District	Upazila
		New	Carried over		
Demonstrations implemented in 2000/01					
2000/01 new demonstrations	21	6,248	-	27	71
Total in 2000/01	21	6,248	-	27	71
Demonstrations implemented in 2001/02					
2001/02 new demonstrations	19	6,608	-	27	68
Total in 2001/02	19	6,608	-	27	68
Demonstrations implemented in 2002/03:					
2001/02 demonstrations	14		5,345	25	57
2002/03 new demonstration	27	7,654		31	105
Total in 2002/03	27*	7,654	5,301	31*	105*
Demonstrations implemented in 2003/04:					
2001/02 demonstrations	13		4,701	22	50
2002/03 demonstrations	24		6,614	28	97
2003/04 new demonstrations	35	11,925		37	132
Total in 2003/04	35*	11,925	11,315	38*	142*
Demonstrations implemented in 2004/05:					
2002/03 demonstrations	22		6,134	28	94
2003/04 demonstrations	33		11,273	37	129
2004/05 ew demonstrations	33	11,304		36	130
Total in 2003/04	33*	11,304	17,407	38*	141*
Total	48*	43,739	-	-	-

*Total may not add due to overlapping operations

Attachment 9 Evolution of supported demonstration farmer groups and its members (demonstration and secondary demonstration farmers) since project inception

Particulars	NGO	Demo Farmer Groups	Demonstrations	Secondary adopters	total
Demo farmers supported in 2000/01					
New demonstrations 2000/01	21	-	6,248	-	6,248
Total in 2000/01	21		6,248		6,248
Group members supported in 2001/02					
New demonstrations 2001/02	19	464	6,608	-	6,608
Total in 2001/02	19		6,608		6,608
Group members supported in 2002/03					
2001/02 group members	14	385	5,345	-	5,345
New demonstration 2002/03	27	955	7,654	-	7,654
Total in 2002/03	27*		12,999		12,999
Group members supported in 2003/04					
2001/02 group members	13	342	4,701	1,034	5,735
2002/03 group members	24	868	6,614	6,432	13,046
New demonstrations 2003/04	35	1,447	11,925	-	11,925
Total in 2003/04	35*	2,657	23,240	7,466	30,706
Group members supported in 2004/05					
2002/03 group members	22	807	6,134	11,273	15,926
2003/04 group members	33	1,367	11,273	12,291	23,564
New demonstrations 2004/05	33	1,450	11,304	-	11,304
Total in 2003/04	33*	3,624	28,711	22,083	50,794
Total	48*				

*Total may not add due to overlapping operations

Attachment 10 Extension services received by cooperating farmers since project inception

		Extension services received for			Total demos	No Demo groups
		1 yr	2 yr	3 yr		
2000/01	<i>Total demonstrations</i>	6,248	n.a.	n.a.	6,248	n.a.
2001/02	Demonstrations	1,263	644	4,701-	6,608	
	Secondary demos	1,034	-	-	1,034	
	<i>Total demonstrations</i>	2,297	644	4,701	7,642	464
2002/03	Demonstrations	1,040	480	6,134	7,654	
	Secondary demos	4,841	6,432	-	11,273	
	<i>Total demonstrations</i>	5,881	6,912	6,134	18,927	955
2003/04	Demonstrations	652	11,273		11,925	
	Secondary demos	12,291			11,291	
	<i>Total demonstrations</i>	12,943	11,273		24,216	1,447
2004/05	Demonstrations	11,304			11,304	
	Secondary demos					
	<i>Total demonstrations</i>	11,304			11,304	1,450
Total		38,673	18,829	10,835	68,337	4,316

Attachment 11 Status of 2004 budgets and funds release to partner NGOs as of 30 June 2004

Sl. No.	NGO	No/planned pond/plot	budget		balance 2,002	instalment				remaining budget
			total	WorldFish		Q1	Q2	Q3	Q4	
1	ADI	450	2,091,612	1,441,642	-37,182	226,759	1,009,538	135,411	107,117	1,252,065
2	BAIC	450	2,279,962	1,527,256	-20,368	239,908	1,056,146	156,814	94,756	1,307,716
3	BS	450	2,190,559	1,486,618	-11,639	216,955	1,105,316	146,655	29,332	1,281,302
4	BUK	350	1,101,265	500,575	-54,719	229,920	116,305	125,144	83,925	325,374
5	CARP	350	1,904,038	1,247,290	-65,804	257,356	826,189	136,823	92,727	1,055,738
6	CDS (Chandradip)	250	774,169	422,274	-21,423	169,219	95,568	105,569	73,342	274,478
7	CIRUP	300	1,667,761	1,085,346	-55,021	224,892	695,365	121,337	98,774	915,475
8	COAST	350	1,198,236	544,653	-27,078	217,707	87,475	136,163	130,386	354,024
9	CRED	450	2,310,239	1,541,018	-81,550	305,906	1,052,740	160,255	103,668	1,316,662
10	DJKS	350	1,133,435	515,198	-76,393	256,712	133,363	128,800	72,717	334,879
11	FHD	300	1,690,601	1,095,728	-61,958	235,463	725,544	123,932	72,747	922,223
12	Gramaus	250	1,478,340	1,033,640	-8,765	195,539	611,993	133,410	101,463	846,866
13	GRASUK	250	872,740	476,040	-13,937	180,551	130,332	119,010	60,084	309,426
14	ISWA	250	778,679	424,734	-18,693	167,350	92,677	106,184	77,217	276,077
15	JC	450	2,133,938	1,460,881	8,007	188,302	993,706	140,220	130,646	1,264,572
16	LDRO	300	1,598,603	1,053,910	-60,280	219,149	-	-	-	put on hold
17	LIPP	250	784,783	428,063	-3,867	153,689	85,267	107,016	85,958	278,241
18	LUSTRE	250	864,765	471,690	-50,184	215,276	119,818	117,923	68,858	306,598
19	ORD	300	1,719,547	1,108,885	-24,535	202,645	716,426	127,221	87,128	930,775
20	OREDAR	350	1,154,822	524,919	-75,001	258,723	112,165	131,230	97,802	341,197
21	PAGE	350	1,171,297	532,408	-126,158	312,501	85,679	133,102	127,284	346,065
22	POSD	250	873,950	476,700	-52,534	219,379	121,004	119,175	69,676	309,855
23	PP	250	911,966	414,530	-43,642	188,728	72,068	103,633	93,744	269,444
24	PRANTEC	350	1,962,243	1,273,747	-81,377	282,188	839,448	143,437	90,051	1,072,936
25	Proshika	600	2,610,758	1,696,777	132,270	251,602	812,645	274,194	226,066	1,312,905
26	RRF	450	2,249,578	1,513,445	-20,631	235,337	1,028,830	153,361	116,548	1,298,739
27	SARA	350	1,202,214	547,370	-41,257	232,837	112,738	136,843	106,210	355,790
28	SATO	300	1,645,820	1,075,373	-11,874	178,255	676,085	118,843	114,064	908,992
29	Shristy	250	766,486	418,083	4,176	142,153	75,367	104,521	91,866	271,754
30	SHUSHILAN	250	787,710	429,660	-17,701	168,082	100,355	107,415	71,509	279,279
31	SPP	400	2,169,211	1,422,369	-74,330	292,159	932,968	155,592	115,980	1,204,540
32	TMSS	450	2,484,979	1,620,445	-99,784	351,940	1,023,178	180,111	165,000	1,368,289
33	VPKA	350	1,318,163	599,165	-49,558	259,266	125,889	149,791	113,777	389,457
34	Welfare	250	819,863	447,198	-57,801	214,320	117,438	111,800	61,442	290,679
Total (No/Tk)		11,550	50,702,332	30,857,630	-1,300,591	7,690,768	15,889,625	4,450,930	3,231,857	23,572,412
Total (US\$)			853,359	519,358	-21,890	129,442	267,435	74,913	54,395	396,742

approved expenditure/disbursed

projected expenditure

1 \$ = 59.415

(June 2004)

Attachment 12 Status of research projects with the Universities as of 30 June 2004

Grant No	Name of the Project	Principal Investigator Name and Address	Project tenure	Existing status	Funds status
01	Feasibility of early shrimp farming with over wintered Golda (<i>Macrobrachium rosenbergii</i>) juveniles	Dr. Mahmudul Karim, Shrimp Culture Specialist, House No.16, Road No. 20, Sector No. 4, Uttara Model Town, Dhaka Bangladesh E.mail: dmkarim@bdcom.com	One year (October 2000 - May 2001)	Completed and final report available	Approved: Tk. 235,000 Disbursed: Tk. 162,527
02	Improved handling and preservation of golda <i>Macrobrachium rosenbergii</i> for producing safe and wholesome product	Drs. Md. Kamal and Md. Nazrul Islam, Professors, Department of Fisheries Technology, Bangladesh Agricultural University, Mymensingh., Bangladesh Tel: (091) 55695-97/2359 E-mail: kamal@royalten.net	One year (April 2001 - March 2002)	Completed and final report available	Approved: Tk. 250,000 Disbursed: Tk. 250,000
03	Cost-profit analysis and market testing of value-added product from silver carp and involvement of rural low income people in the production and marketing of value added product	Dr. Nowsad Alam, Professor, Department of Fisheries Technology, Bangladesh Agricultural University, Mymensingh, Bangladesh Email: nowsad@royalten.net	One year (November 2001 - October 2002)	Completed and final report available	Approved: Tk. 250,000 Disbursed: Tk. 200,000
04	Development of an appropriate technology on <i>Azolla</i> based rice-fish farming	Dr. M.H. Mian. Professor, Department of Soil Science, Bangladesh Agricultural University, Mymensingh, Bangladesh Email: soilbau@mymensingh.net	One year (April 2001 - March 2002)	Completed and final report under preparation	Approved: Tk. 254,800 Disbursed: Tk. 229,324
05	Ecology of euglenophytes in aquaculture ponds and their role in fish production	Dr. Saleha Khan, Assistant Professor, Department of Fisheries Management, Bangladesh Agricultural University, Mymensingh, Bangladesh Email: salehamk@bdcom.com	One year, (June 2001 - May 2002)	Completed and final report available	Approved: Tk. 237,315 Disbursed: Tk. 237,315
06	Economic analysis of the sustainability of supplementary feed-based aquaculture	Md. Rais Uddin Mia. Assistant Professor, Department of Agricultural Finance, Bangladesh Agricultural University, Mymensingh, Bangladesh Tel: (091) 55695-97/2260 Email:	One year, (August 2001 - July 2002)	Completed and final report under preparation	Approved: Tk. 225,000 Disbursed: Tk. 170,759
07	Study of inbreeding problems of Thai Pangas (<i>Pangasius sutchi</i>) in Bangladesh using allozyme electrophoresis (Mymensingh region)	Dr. Md. Mukhlesur Rahman Khan Assistant Professor Department of Fish Biology and Genetics Bangladesh Agricultural University, Mymensingh 2202 E-mail: mukhles@royalten.net	One year (December 2001 - November 2002)	Completed and final report submitted	Approved: Tk. 250,000 Disbursed: Tk. 250,000

Grant No	Name of the Project	Principal Investigator Name and Address	Project tenure	Existing status	Funds status
08	Socio-economic aspects of freshwater prawn (<i>Macrobrachium rosenbergii</i>) culture development in Mymensingh	Dr. Nesar Ahmed, Assistant Professor, Department of Fisheries Management, Bangladesh Agricultural University, Mymensingh, Bangladesh Tel: (091) 55695-97/2281 Email: nesar@royalten.net	One year (January 2002 - December 2002)	Completed and final report available	Approved: Tk. 126,000 Disbursed: Tk. 126,000
09	Management of Euglenophytes in Aquaculture Ponds for Improving Fish production in Bangladesh	Dr. Saleha Khan, Assistant Professor, Department of Fisheries Management, Bangladesh Agricultural University, Mymensingh, Bangladesh Email: salehank@bdcom.com	One year (January 2003 - December 2003)	Completed and final report available	Approved: Tk. 290,000 Disbursed: Tk. 290,000
10	Study of inbreeding problems of Thai Pangas (<i>Pangasius sutchi</i>) in Bangladesh using allozyme electrophoresis (Bogra region)	Dr. Md. Mukhlesur Rahman Khan Assistant professor Department of Fish Biology and Genetics Bangladesh Agricultural University, Mymensingh 2202 E-mail: mukhles@royalten.net	One year (January 2003 - December 2003)	Completed and final report available	Approved: Tk. 290,000 Disbursed: Tk. 290,000
11	Development of HACCP Based Quality Management Systems for freshwater Prawn (<i>Macrobrachium rosenbergi</i>) at Field Level for Improved Production, Handling, Preservation and Transportation.	Dr. Md. Kamal and Dr. Md. Nazrul Islam Professors, Department of Fisheries Technology, Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh, Bangladesh.	One year (1 April 2003-31 March 2004)	On-going	Approved Tk. 250,000 Disbursed: Tk. 225,000
12	Development of a Low Cost Feed Using Local Feed Ingredients for Culture of Freshwater Prawn (<i>Macrobrachium rosenbergi</i>) in Ponds by Rural Farmers.	Dr. Md. Arshad Hossain Professor, Department of Aquaculture, Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh, Bangladesh	One year (1 April 2003-31 March 2004)	On-going	Approved Tk. 250,000 Disbursed: Tk. 250,000
13	Culture and Artificial propagation of freshwater eels (<i>Monopterus cuchia</i> and <i>Mastacembalus armatus</i>)	Dr. S.M. Rahamatullah Professor, Department of Aquaculture, Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh, Bangladesh	One year (1 April 2003-31 March 2004)	On-going	Approved Tk. 250,000 Disbursed: Tk. 225,000
14	Investigation of Diseases and Development of Strategies for Improved Health Management of Thai pangus (<i>Pangasius sutchi</i>) Cultured in Rural Ponds in Mymensingh District.	Dr. Md. Ali Reza Faruk Associate Professor, Department of Aquaculture, Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh, Bangladesh	One year (1 April 2003-31 March 2004)	On-going	Approved Tk. 250,000 Disbursed: Tk. 225,000
15	Marketing of Small Indigenous Fish Species (SIS) and Socio-economic Aspects of SIS Producers,	Dr. Mostofa A.R. Hossain Associate Professor, Deptt. of Fisheries Biology and	One year (1 April 2003-	On-going	Approved Tk. 250,000

Grant No.	Name of the Project	Principal Investigator Name and Address	Project tenure	Existing status	Funds status
	Intermediaries and Retailers with Sustainable Livelihood Approach in Three Fish Markets of Mymensingh.	Genetics, Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh	31 March 2004)		Disbursed: Tk. 225,000
16	The Sustainable Livelihood Approach of Prawn Distribution and Marketing System in Mymensingh	Dr. Nesar Ahmed Assistant Professor Department of Fisheries Management Bangladesh Agricultural University, Mymensingh	One Year (1 May 2003- 30 April 2004)	On-going	Approved: 218,000 Disbursed: Tk. 196,200
17	GIS study in Mymensingh region for sustainable aquaculture development and inland fisheries management	Dr. M.A. Salam Assistant Professor Department of Fisheries Management Bangladesh Agricultural University, Mymensingh	One year (1 September – 31 August 2004	On-going	Approved: 267,000 Disbursed: Tk. 237,000
18	Livelihood assessment of fish seed traders: PRA and household survey	Mr. Mahmud Hasan Lecturer Department of Aquaculture and Fisheries University of Dhaka, Dhaka	Seven months (1 August – 28 February 2004)	On-going	Approved: 244,400 Disbursed: Tk. 244,400
19	Study of Inbreeding Problems of Thai Pangas in Bangladesh (for Jessore region)	Dr. Md. Mukhlesur Rahman Khan Assistant Professor Department of Fisheries Biology and Genetics Bangladesh Agricultural University, Mymensingh	One Year (01 Jan 2004- 31 December 2004)	On-going	Approved: 250,000 Disbursed: Tk. 225,000
20	Comparative study on development of monoculture air breathing indigenous fish (koi, magur, singh) in production systems appropriate for the poorest	Mr. Md. Shariful Islam Project Coordinator Social Advancement Through Unity (SATU) Main Road, Tangail 1900 E-mail:satu@bol-online.com	One Year (01 June 2004- 31 May 2005)	On-going	Approved: 176,325 Disbursed 70,530
21	Production and marketing system of fish seed-assessing demand for and supply of fry and fingerlings in DSAP areas of Bangladesh	Dr. M. Serajul Islam Professor Department of Agricultural Economics Bangladesh Agricultural University Mymensingh-2202 E-mail: islamms@royalten.net	One Year (01 June 2004- 31 May 2005)	On-going	Approved Tk.184,000 Disbursed Tk.73,600
22	Brood stock management and fish seed production in Bangladesh	Mr. Md. Nurul Amin Assistant Director Rural Development Academy Bogra-5842	One Year (01 June 2004- 31 May 2005)	On-going	Approved Tk.196,000 Disbursed Tk.78,400

No.	Name of the Project	Principal Investigator Name and Address	Project tenure	Existing status	Funds status
23	Adoption and productivity of rice – fish and fingerling culture in Bangladesh	Dr. B.A.A. Mustafa Chief Scientific Officer and Head Bangladesh Rice Research Institute Gazipur, Joydebpur E-mail: bmustafi@citechonet.net	One Year (01 June 2004- 31 May 2005)	On-going	Approved Tk.192,710 Disbursed Tk.77,084
24	Review of poor fish farmers accessibility to credits – A study of small fish farmers with special reference to the DSAP extension program	Prof. Feroz Iqbal Faruque Department of Business Administration The University of Asia Pacific Dhanmondi, Dhaka E-mail: faruque@sabincobd.com	One Year (01 June 2004- 31 May 2005)	On-going	Approved Tk.198,000 Disbursed Tk.79,200
25	Factors affecting the adoption of aquaculture technologies by the farmers	Dr. M. Abul Kashem Professor Department of Agricultural Extension Bangladesh Agricultural University Mymensingh-2202 E-mail: kashem@royalten.net.bd	One Year (01 June 2004- 31 May 2005)	On-going	Approved Tk.198,000 Disbursed Tk.79,200
26	A study on women's empowerment through participation in aquaculture	Dr. Hammadur Rahman Associate Professor Department of Agricultural Extension Bangladesh Agricultural University Mymensingh-2202 E-mail: hammad@royalten.net.bd	One Year (01 June 2004- 31 May 2005)	On-going	Approved Tk.200,000 Disbursed Tk.80,000
27	Rice to fish culture: Process, conflicts and impact	Dr. Md. Akhteruzzaman Associate Professor Department of Agricultural Economics Bangladesh Agricultural University Mymensingh-2202 E-mail: akterbau@yahoo.com	One Year (01 June 2004- 31 May 2005)	On-going	Approved Tk.194,000 Disbursed Tk.77,600
28	Cryopreservation of sperm of common carp (Cyprinus carpio), grass carp (Ctenopharyngodon idella) and silver barb (Barbiodes gonionotus) for their genetically improved seed production	Dr. Md. Rafiqul Islam Sarder Associate Professor and Head Department of Fisheries Biology and Genetics Bangladesh Agricultural University Mymensingh-2202	One Year (01 June 2004- 31 May 2005)	On-going	Approved Tk.280,000 Disbursed Tk.196,000

Attachment 13 Handing over of the cash prizes of PAL competition

In early 2004 participatory action learning (PAL) session plans on freshwater aquaculture were sought from people worldwide conducting extension and training of farmers. This was done through an international competition advertised in a variety of trade journals, magazines, web sites and e-mails with cash prizes totalling US\$ 1,500 pledged by SUFA (Support to Freshwater Aquaculture) program in Vietnam (Danida and the Government of Vietnam funded) and DSAP (Development of Sustainable Aquaculture Project) in Bangladesh (funded by USAID and implemented by WorldFish).

A judging panel consisting of SUFA and DSAP staff and the competition coordinator completed judging at the end of April 2004. Highly commended prizes of US\$ 50 were awarded for entries with between 50 – 60% against agreed judging criteria and a first prize of US\$ 125 was awarded for entries with more than 60%. SUFA and DSAP are pleased to announce the following prize winners:

Theme	First prize US\$ 125	Highly commended US\$ 50
1) Small-scale pond aquaculture	<p><i>The importance of correct stocking density</i></p> <p>Arlene Nietes-Satapornvanit Senior Project Researcher Aquaculture Outreach Project AARM/SERD Asian Institute of Technology PO Box 4, Klong Luang, Pathumthani 12120 Thailand arlene@ait.ac.th</p>	<p><i>How to recognise good quality fish larvae</i></p> <p>Mr. Phan Tien Chuong Technical Department Nghe An Extension Centre Trang Thi Ward Vinh City Nghe An Province Vietnam Tel: +84 038 561 542</p> <p>Nursing small fish fry Arlene Nietes-Satapornvanit (Details as before)</p>
2) Integrated agriculture-aquaculture	No first prize awarded	<p>Planning and budgeting for rice-fish cultivation</p> <p>Tran Thi Tuyet, Vu Thi Bich Ha and Nguyen Hien Thi Business Promotion and Service Center (BPSC) Alley 149 Giang Vo Hanoi Vietnam bpsc@netnam.vn</p>
3) Group formation and development	No entries before closing deadline	No entries before closing deadline
4) Monitoring and extension	No first prize awarded	<p>Why keep records?</p> <p>Arlene Nietes-Satapornvanit (Details as before)</p>