Working Paper 2002/11

Report on
Associate Partner NGO Foundation Training Course
(for staff recruited in 2002)

Report prepared by:

Hasan A. Chowdhury
Reazul Karim

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Development of Sustainable Aquaculture Project
WorldFish Center
Bangladesh Office

WorldFish
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Preface

Freshwater Resources Research Program of the WorldFish Center is aimed at improving food security and eradicating poverty by introducing small-scale fresh water aquaculture as an element into the economic activities of resource poor households in rural area (Bangladesh). The target groups are the poor producers and consumers who can benefit from the better use and management of aquatic resources.

After a long experimentation and field trials WorldFish Center has been able to generate low cost productive aquaculture technologies for the resource poor farmers of Bangladesh. Year 2000 was the beginning of the USAID funded Development of Sustainable Aquaculture Project (DSAP). The major thrust of the project is to implement aquaculture demonstration and to bring unused and/or underused seasonal and perennial ponds and rice fields into improved production with methods that are feasible, affordable and acceptable to resource poor households in rural areas of Bangladesh. The DSAP approach aims at making cooperating farmers and implementing NGOs sustainable so that after withdrawal of support from the WorldFish Center, aquaculture practices and development are continued in the rural areas.

The DSAP has reoriented many of its strategies in 2002 to ensure effective and quality support to the partner NGOs to attain sustainability at both beneficiaries and partner NGO level. Dhaka based administration of DSAP has been restructured and taken to the fields by opening eight regional liaison offices. For the sake of providing quality services, beneficiaries are being served by the staff of these liaison offices. The partner NGOs is receiving technical and financial support.

The outreach activities of the project are being implemented through 27 partner NGOs in 31 districts of Bangladesh. In addition, the DSAP is also providing training and technical feedback to the staff of associate partner NGOs to familiarize DSAP technologies and to disseminate the aqauculture practices in rural areas.

According to commitment of WorldFish Center to interested NGOs to build up the capacity of their extension staff (aquaculture) foe effective technology transfer and strengthen the aquaculture program of the NGOs for future sustainability. Therefore, a foundation training course was organized for the field staff (aquaculture) of associate partners NGO who have been involved with the aquaculture technology demonstration and farmer training activities of the NGOs.

Johannes Janssen
Project Leader
Development of Sustainable of Aquaculture Project

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1. Introduction

Foundation training course was organized by DSAP for the field staff of newly selected 45 Associate Partner NGOs involved in aquaculture program under Aquaculture Training Program-2002 of DSAP. The main objective of this training course was to develop the fundamental knowledge of field staff about basic principles of aquaculture and to orient them with the recent aquaculture production technologies in ponds and rice-field ecosystem. A series of successive training program have been planned for the development of technical and managerial skills of NGOs field staff within next 4 years support. The foundation-training course was the first initiatives under the technical support program to the NGOs in addition to the regular financial and technical support to the participating Partner NGOs for aquaculture technology demonstration under DSAP.

2. Abstract

A total of 90 field staffs from 44 Associated Partner NGOs participated in the foundation training under 5 batches regionally organized at Jessore, Dhaka and Barisal in the month of June and September 2002. Details of the training schedule for 5 batches are shown in Annex-1 and the list of participant field staff in each batch with their brief information are enclosed as Annex-2. A generic 3 and half day program was followed to conduct the training course in all the training batches to cover the course content within the frame of time as per schedule. The generic program of the training course followed is enclosed herewith in Annex-3. The subject matter of the training course was basic principles of aquaculture and different types of aquaculture production technologies. The details of the course content along with their major objectives are enclosed in Annex-4. In each batch of training a set of expertise resource persons have been contributed in different session to make the training session more effective and attractive. The list of resource persons/facilitators contributed at different batches of the foundation-training course is enlisted in Annex-5. To know the impact of training and to assess the level of improvement of the participant's knowledge through this training course, a comprehensive training evaluation were conducted. The MCQ test questionnaire used for this quantitative evaluation and performance score obtained by the field staff in pre and post training test are stated in and Annex-7 respectively.

3. Background

WordFish Center (Former ICLARM-The World Fish Center), Bangladesh Office has been working for more than a decade for developing and dissemination of low-cost environment friendly sustainable aquaculture technologies appropriate for the resource poor farmers of Bangladesh. ICLARM has been continuing technical and financial assistance to NGOs since 1992 for rural enterprise development in aquaculture sector through demonstration of recent fish production technologies with a view of eradication of poverty and malnutrition. During this period Aquaculture technologies designed by ICLARM in collaboration with GO/NGO and Universities proved their acceptability for cost-effective aquaculture production and significantly enhance aquaculture enterprise development for employment generation.

During last 3 years about 20,000 field demonstrations were conducted on different pond and rice-fish farming options at different agro-ecological conditions of Bangladesh. Under the technical and financial support of DSAP, 27 national, regional and local NGOs have been

involved in field demonstration activities in 2002. Considering the tremendous persuasion for technical assistance from numerous NGOs, ICLARM wishes to let the other NGOs know about the technology and initiated for dissemination of these technologies. Along with the technical and financial support to Partner NGOs, ICLARM decided to offer training support to interested non-participating NGOs to develop technical and management skill of their Field staffs involved in aquaculture. To achieve the goal of developing non-participating NGOs staff, 1 basic/ foundation training followed by 4 refreshers training course has been planned under successive 4 years technical support. According to that planned training program, 3 and half days long foundation training course was organized for selected Associate Partner NGOs field staff.

4. Aim/ Expected outcome of the Training

It was expected that after receiving this training the participants Field staff of Associate Partner NGOs would be able to understand the basic principles of aquaculture and could be able to know about different Integrated Aquaculture-Agriculture (IAA) production technologies in ponds and rice-fields. Their knowledge regarding integrated aquaculture will help the resource poor farmers to identify and utilize their available natural resources to increase fish production.

5. Objectives of the Training

The major objectives of foundation training course for the APNGO field staffs was to:

- Trained the NGOs Field Staff with the recent knowledge of basic principles of aquaculture and different environment friendly low-cost integrated aquaculture production systems to increase fish production

- Capacity build up of NGOs field staff for effective dissemination of aquaculture technologies through participatory training and extension approaches

- To promote sustainable aquaculture enterprise development as an effective way of employment and income generation to eradicate poverty and malnutrition

6. Selection Procedure of the Participant NGO and the Staff

To offer this training opportunity to interested NGOs involved in aquaculture, ICLARM invites nominations from 43 selected NGOs (Annex-9) out of 161 NGOs who applied for aquaculture training in 2002 and designated as Associate Partner NGO-2002. Some of this 43 NGOs also received aquaculture training on specific technical options under the Aquaculture training program 2000 organized by ICLARM. The selection of APNGO was done based on some common criteria such as- NGOs organizational involvement in aquaculture, nature of aquaculture program, institutional capability (staff strength, financial and management capacity) to carry out the program and overall interest to be an Associate Partnership with ICLARM. Primarily the information collected about the interested NGOs from the documents enclosed with applications received and then a short list of APNGOs were prepared for each of the 8 ICLARM working regions. According to that short list, concerned Extension Officer directly visited the APNGOs to verify the information, discussed with the NGO Executives regarding the terms and conditions of partnership and after a series of meeting they finally

selected the APNGOs. A generic Memorandum of Agreement (MoA) was developed and sends to all selected APNGOs to make the training support in a successive continuous program based with specific objectives.

7. Expectation

To assess the training needs of the Associate Partner NGOs field staff involved in aquaculture, feedback received from the PNGOs field staff and participants of aquaculture training in 2000 and 2001 were carefully analyzed. The opinion of the partner NGOs Executives also taken into active consideration to identify specific needs for their staff development. The recommendations regarding the training needs of NGO trainers came out from number of group discussions made at different training sessions organized at different part of the country were documented and summarized. Then all these recommendations were thoroughly discussed with Extension Officers and prepare a list of their field of interest to finalize the training needs. According to the identified training needs, a list of probable training subject both for PNGO and APNGOs also invited from Extension Officers who closely working with the Associate Partner/Partner NGOs in the field level. After prioritize the training needs for APNGOs field staff a concise training plan was developed with different training sessions with specific objectives under 4 years of project support to the partners. Foundation training was the first training course under that precise training program for APNGOs field staff where basic principles of aquaculture technologies were mostly focused being it was the most targeted and first training needs as opined by the partners. However, before starting the each training session with prescheduled training content, an on the spot need assessment was also organized. Through group discussion and presentation the training needs were verified and readjusted in line with the training content as per need of the participant field staff came from different agro-ecological regions of the country with different specific needs. The summarized training needs came out through group discussions are enclosed in Annex-6.

8. Training Methodology

The foundation training courses for APNGO field staff was conducted mostly following participatory training methods. With few exceptions, almost all of the nominated field staff participated in the training had no previous training or having little experience related to aquaculture. To make easy and understand the subject matter of each training session, priority was given to share the existing knowledge and experience of the field staff regarding different aspects of aquaculture practices. Different types of training methodologies were followed as per need of the training session such as question and answer, class room lecture, group discussion, panel discussions, exercises, VIP cards, simulations, brain storming, role play, study circle etc. Assessment of the existing knowledge through open discussion before entering any specific session, chronological presentation by the concerned resource person/s on that issue and finally participatory review of presented sessions were followed for clear perception of the trainees about all the planned session.

To demonstrate the participatory approaches of training and extension methodology, after theoretical presentation and discussions, a role-play session conducted by the participants. From that dame session they could assessed the lacking and able to clearly understand the quality and role of a good extension worker and how to conduct successful farmers training session. After completion of the scheduled training sessions, the participants organized very attractive and enjoyable cultural evening which were recreational and improved the

social/personal relationship among participants. Some slide show on rice-fish research, video shows on different documentary films and cultural shows also organized by ICLARM to introduce them with recent technological development of aquaculture. Since participants and resources persons staying full time at the same venue, along with the planned training session, free and frank discussion among them at anytime about different issues facilitate a convenient environment which was very effective for training.

9. Training Materials and Equipment

A revised training manual on the recommended aquaculture technology packages along with other relevant subjects, a farmers pond record book and lecture notes/handout required on different training session have been distributed to each of the training participants. Required stationary materials and plastic folder to preserve training documents also supplied to the trainees.

A number of training equipment was used to conduct the training course according to need and subject matter of the training sessions were made attractive and effective to the participants using one or more relevant audio-visual aid. The most commonly used training equipment were white board, flip chart, overhead projector (OHP), video camera, LCD Projector, slide projector, VIP cards, poster paper, board paper, television, VCD player etc. During presentation of different technical sessions, use of color transparency photographs, slides, OHP sheets and some live samples of aquaculture inputs clearly shows the visual objects through which the trainees perceived clear ideas along with the theoretical knowledge in each session.

10. Training Result

The most important outcome of the foundation-training course conducted was the development of the basic technical knowledge of field staffs regarding aquaculture practices. Through this training a positive change bought out in their attitude to be a good, dedicated and technically skilled extension worker in aquaculture sector. The participants field staff of Associated Partner NGOs oriented about the problems and prospects of aquaculture for rural development and the role of ICLARM/DSAP and Partner NGOs staff to do this. With a threadbare discussion on each of the technical session, the participants perceive a clear understanding about basic principles of aquaculture production systems, soil-water quality management for sustainable fish production and different low-cost, semi-intensive and environment friendly technological options for fish/shrimp production in pond and rice-field ecosystem. They also came to know the recent concept of Integrated Resource Management (IRM), different types of Integrated Aquaculture-Agriculture systems, their feasibility and importance for our resource poor peoples. The participatory sessions on IAA developed their knowledge for identification of local household resources and how to ensure maximum utilization or recycling the available resources for sustainable and cost-effective food production through Integrated Aquaculture-Agriculture (IAA).

The theoretical lecture/presentation sessions on participatory training and extension methodology delivered by expert resource persons updated their knowledge regarding modern training and extension methodology. This knowledge made them confident to assess and prioritize training needs of the beneficiaries, planning, organize and conduct farmers training more effectively. The participatory review, discussion and practical dame sessions

(role-play) made them capable to identify their lacking as an extension worker and considerably improved their facilitation skills.

11. Evaluation of Training Participants and the Training Course

11.1 Evaluation of Participant Field Staff/ Trainees

A comprehensive training evaluation was done to know the impact of foundation training and to assess the level of development of knowledge and skills of participant field staff through this training. For this purpose Pre and Post evaluation of training was done with a MCQ test using a questionnaire on different technical, management issues relevant to course content. Along with this written and verbal feedback on different aspects were taken from each of the participant in all the training batches. The score (out of 50 total marks) obtained by individual staff at pre and post-training test analyzed (Annex-6) and levels of their development assessed as on percentage of score increased in responds to this test. It was found that the average marks scored by 90 participants field staff was 36.72% in pre test and 58.32% in post test evaluation respectively. This result indicates an average 58.81% qualitative improvement of field staffs over their pre training knowledge and skill through the training. The minimum and maximum score obtained by the trainees was 10% & 58% in pre test which was considerably increase to 34% & 94% in post evaluation test respectively. It was interesting that the overall performances score of APNGOs field staff are comparatively better than that of PNGOs field staff. Among the participant field staff those who have higher academic background in science and/or having previous training and experience in aquaculture shows good performance rather than others having no such quality.

11.2 Evaluation of the Training Course

A set of questions regarding different aspects of training course was placed to the participants to judge their level of satisfaction and to improve the quality of training in future. To know the free and frank opinion of the participants and to make the assessment unbiased the respondent field staff were instructed not to mention their name and address in the questionnaire. The matrix ranking by the total participants was assessed in percentage for each of the subjects to be justified (Annex-7). Very interesting result was found regarding different aspects of training course which will be helpful to identify the drawbacks of training conducted and to overcome these lacking to make the training more effective in future.

82 field staff participated in course evaluation out of total 90, other 8 did not participate being they were absent during evaluation session. 59.75% opined that foundation training course should be organized earlier of the year where 39% support that the schedule was in right time. Regarding duration of the training, 97.56% strongly expressed their opinion to increase the period of foundation training at least 7 days to 15 days if possible.

51.2% field staff support that the content of the training course was appropriate, 30.5% think that the content was less, 3.6% comments that it was more and 13.4% demand to revise the content with some new addition. 30.5% participants supported the training methodology followed was appropriate, 38% suggested to make the training more participatory along with increase the time and 26.8% in favor of adding more practical and field visit sessions in the training. 36.6% participant opined that the training equipment used was appropriate, 52% opined to increase the use of modern equipment like LCD, Power point, Video etc. About 51% staff comments that the training materials supplied was sufficient but 36.6% expressed their opinion that it was inadequate and the remaining 12% demanded to increase training

materials. Over 63.4% participants expressed their satisfaction for providing good accommodation facilities, 19.5% opined that it was excellent, only about 7% commented as unsatisfactory and 3% suggested to change the venue (possibly one batch at BDS, Barishal faces some troubles for accommodation). 67% participant appreciated the food supplied in training as satisfactory, 18% defined excellent and only 9% expressed their dissatisfaction regarding food. About 43% field staff opinioned that the transport/communication to training venue from their duty station was acceptable and comfortable, 23% commented as it was far and 23% think it was near. 34% field staff in favor of the existing system of regional training venues, 34% opined for training venue near to Dhaka and 29% opted for venue at alternative regions rotationally to facilitate them to visit other places.

The comments regarding the overall volume of course content as foundation/basic training, 46.3% participants support that it was appropriate. 35.4% trainee suggested to include some important new sessions (especially more detailed discussions on soil-water quality management and technology options), 11% in favor of exclude some less important sessions to save time (like monitoring & evaluation) and 5% opined for overall revision of the course content.

Respond regarding the different subject matter of the foundation training also found very interesting. The technical sessions delivered were ranking by the participants 28% as very good, 35% as good and 35% as satisfactory. The session on DSAP Strategy was ranked 30% as very good, 28% as good and 28% as satisfactory respectively. The remaining 11% opined the session on DSAP strategy was less important. Almost 85% participants appreciated participatory discussion sessions, slide/video show, and power point presentations and requested to increase such sessions where remaining 7.3% opined that it was not so necessary. Over 91% field staff support to include the sessions on training and extension methodology but the other ones comments that more technical sessions should be include instead of these sessions in the foundation training within this short duration.

45% participants support that the number of facilitator/resource persons involved were appropriately as per requirement of the course conducted. 47.6% suggested for more involvement of senior level aquaculture/IAA technical resource persons/facilitators from different other organizations. Some 3.66% also claimed that the number and level of facilitators should be involved in all the training batches equally at other regions but not only near to Dhaka. 3.7% opined to reduce the number of facilitator where more than one for the same subject matter.

The overall judgement by the participants about the training success, 13.4% ranked as excellent, 13.4% commented as very good and more than their expectations, 20.7% as good and according to their expectation, 33.94% as overall satisfactory and remaining 17% commented as the training was acceptable in quality. Out of 82 respondent, 3 did not make any comments and nobody opined as unsatisfactory.

11.3 Evaluation of the Trainer/ Facilitator/ External Resource Persons Contributed

To assess the quality and acceptability of the facilitators as well as to improve the quality of the training in future, performances of the facilitators contributed at different batches of the training course also evaluated by the participants. For this purpose, the participants were requested to confidentially ranking the facilitators with performance score. The score was decided based on the selection and importance of subject matter presented, understanding/knowledge about the subject matter, presentation style, capability to drawing

attention of the trainees, effectiveness of the training session and overall personality /acceptability of that particular facilitator. The ranking was scored with the matrix as excellent (6), very good (5), good (4), satisfactory (3), need some improvement (2), unsatisfactory (1). The sum total score obtained from all the participants was than divided by the number of trainees to find out average score obtained by that particular facilitator. Among the facilitators from DSAP and other external resource persons contributed in the training course the highest average score obtained as 5.24 (out of 6.0) and lowest average score was 2.27. The individual score performed by different facilitator enclosed in Annex-8.

Annex 1: Time and training schedule of different batches

Batch No	Date	Venue	Regions	Participating NGO and Number of Staff		
				Name of NGO	Activities Area	Staff No
1	14 –17 June 2002	Training and Resource Center RRC, Ramnagar Jessore.	Jessore	1. PURNIMA	Khulna	2
				2. SSPKS	Bagerhat	2
				3. ASHROY	Khulna	2
				4. RUSTIC	Khulna	2
				5. SUSHILON	Sathkhira	2
			Magura	6. DNP	Faridpur	2
				7. SDC	Faridpur	2
				8. SRIZONY-BD	Jhenidah	2
				9. WE	Jhenidah	2
				10. MOUCHAK	Jhenidah	2
				11. SETU	Kushtia	2
				12. PSUS	Maherpur	2
			Barisal	13. SUS	Barisal	2
				14. SMKK	Barisal	2
				15. JMKM	Gopalganj	2
				16. SDS	Sariatpur	2
				17. BRIDGE	Khulna/Barisal	2
				18. STAR	Gopalganj	2
				19. BUS	Madaripur	2
				20. CDS	Gopalganj	2
				21. NADO	Gopalganj	2
2	23-26 June 2002	Training and Resource Center (TARC), BRAC, Savar, Dhaka	Comilla	22. AID-Comilla	Comilla	2
				23. SHEBA	Comilla	2
				24. VDC	Brahmanbaria	2
				25. GKK	Brahmanbaria	2
				26. TRIBEDI	Dhaka/Laksmipur	2
				27. OMI	Chandpur	2
				28. GMKS	Chandpur	2
			Gazipur	29. Baptist Mission	Savar, Dhaka	2
				30. SHRISTY-Tangail	Tangail	2
				31. Hunger Project	Dhaka	2
				32. Annesha Fou.	Narsingdi	2
				33. Swanirvar BD	Dhaka	2
				34. TARA	Dhaka/Netrokona	2
				35. ARRDO	Jamalpur	2
				36. NDP	Sirajganj	2
				37. SSKS	Sirajganj	2
				38. PDBS	Sirajganj	2
			Rajshahi	39. PCD	Pabna	2
				40. PARTNER	Rajshahi	2
				41. BCVD	Dhaka/Pabna	2
				42. KGUK	Natore	2
				43. POSD	Rajshahi	2
		TOTAL				86

Annex 1: Time and training schedule of different batches (Continued)

(Remaining staff of selected APNGO-2002 who could not participate in June 2002 schedule)

Batch No.	Date	Venue	Regions	*Participating NGO and staff to be trained*		
				Name of NGO	Working area	No. of staff
1	8-11 September 2002	BDS Training Center, Barisal	Jessore	1. BRIDGE 2. SSPKS 3. PURNIMA	Khulna	2 2 2
			Magura	4. WE 5. SRIZONY-BD 6. SETU 7. GKK	Jhenidah Jhenidah Kushtia Faridpur	2 2 2 2
			Barisal	8. BDS 9. NADO 10. BUS 11. SDS 12. STAR 13. CDS 14. SDC	Barisal Gopalganj Madaripur Sariatpur Gopalganj Gopalganj Barisal	2 2 2 2 2 2 2
			Bogra	15. NDP	Joypurhat	2
			Mymensingh	16. TARA	Mymensingh	2
					Total	**32**

Annex 2: Participant list

Batch: 1 *Venue: T&RC, RRC, Jessore* *Date: 14-18 June 2002*

Sl. No.	Name of NGO	Name of Participant	Designation	Academic qualification	Working Area
1.	RUSTIC	Ms.Sohely Mohammad	P.O	H.S.C	Khulna
2.	RUSTIC	Mr. Abul Hossain (Rana)	P.O	MSc	Khulna
3.	SUS	Mr. Md. Ismal Hossain	P.O	B.A	Barisal
4.	SUS	Ms. Dilara Akter	F.T	H.S.C	Barisal
5.	Mouchak	Md. Shariful Islam	P.A	B.A	Jhenidah
6.	Mouchak	Ms. Kabita Biswas	F.O	H.S.C	Jhenidah
7.	PSUS	Mr. Md. Matiar Raman	Manager	MSS	Chuadanga
8.	PSUS	Mr. Md. Mominul Islam	Coordinator	B.A	Chuadanga
9.	SDS	Mr. Shardar Azizour Rahman	A.O	BSc.	Sariatpur
10.	SDS	Mr. Shankar Ch. Das	Paravet	H.S.C	Sariatpur
11.	SDC	Mr. Swapon Kumar Das	F.O	BSc.	Faridpur
12.	SDC	Mr. Md. Abdul Bari	Project Officer	MSS	Faridpur
13.	DNP	Mr. Md. Nazmul Hasan	S.D.O	B.A	faridpur
14.	DNP	Mr. Md. Anisur Rahman	P.O	H.S.C	Faridpur
15.	Shushilon	Mr. Md. Morydul Islam	F.O	H.S.C	Satkhira
16.	Shushilon	Mr. Sk. Nazmul Haque	F.O	S.S.C	Satkhira
17.	ASHROY	Ms. Bithika Kar	F.W	H.S.C	Khulna
18.	ASHROY	Ms. Tayafa Khatun	F.W	S.S.C	Khulna

Annex 2: Participant list (Contnued)

Batch: 2nd & 3rd Venue: BRAC-TARC & BCDM, Savar, Dhaka Date: 14-18 June 2002

Sl. No.	Name of NGO	Name of Participant	Designation	Academic qualification	Age	Working Area
1	TARA	Mr. Md. Abul Hashem	FS	MA	31.12.75	Netrokona
2	SEVA	Md. Shahidul Islam	A. Coordinator	BA	01.01.71	Comilla
3	NDP	Md. Nezab uddin	FS	BA	12.01.60	Sirajganj
4	THP	S.M. Shaifur Rahman	VS	HSC	08.01.80	Manikganj
5	SSKS	Md. Alauddin Miah	PC	BA	12.01.71	Sirajganj
6	SSKS	Md. Mokulsur Rahman	SDO	HSC	03.02.76	Sirajganj
7	SEVA	Md. Mahbubur Rahman	PO	BA	18.01.80	Comilla
8	KGUK	Md. Zahangir Alam	Supervisor	BA	10.03.76	Rajshahi
9	BCVD	Mr. Md. Imran Ahmed	SF	HSC	10.01.82	Pabna
10	KORMI	Md. Shafqul Islam	PO	HSC	01.03.80	Pabna
11	SATU	Md. Idris Ali	FS	Dip. Agril.	04.11.74	Tangail
12	POSD	Md. Rafiqual Islam	Ex. Facilifator	BSS	20.04.80	Rajshahi
13	GKK	Md. Abu Razib	FS	I Com.	10.06.81	Faridpur
14	SBD	Md. Delwar Hossan	Program Coor.	BA	16.04.55	Dhaka
15	GMKS	Md. Mustafa Kamal	FA	HSC	01.01.69	Chandpur
16	PUP	Md. Homayun Kabir	FS	HSC	01.03.79	Comilla
17	GKK	Mr. Azoy Debnath	PA	HSC	15.12.76	B. Baria
18	GKK	Md. Rafiqul Islam	FO	HSC	01.01.81	B. Baria
19	OMI	Md. Afroz Ali	Coordinator	?	02.12.77	Chandpur
20	PUP	Md. Saiful Islam	Coordinator	BA	15.01.73	Comilla
21	PDBS	Md. Mosharraf Hossain	Supervisor	HSC	13.01.58	Sirajganj
22	THP	Ms. Hasina Mridha Riva	VS	MSS	15.03.78	Dhaka
23	BCVD	Md. Ali Ashraf	FS	HSC	07.12.82	Pabna
24	VDC	Md. Jamal Hossain	Supervisor	HSC	05.06.73	B. Baria
25	VDC	Md. Moklasur Rahman	FO	HSC	08.02.68	B. Baria
26	PDBS	Md. Abul Kalam Azad	CD	HSC	10.06.77	Pabna
27	OMI	Syed Shahadat Hossain	TL	MA	01.01.76	Chandpur
28	ARRDO	Md. Saiful Malek	PO	BSS	31.12.78	Jamalpur
29	KORMI	Md. Egibar Rahman	Accountant	BA	09.02.73	Pabna
30	Swanirvar BD	Md. Abdul Hannan	PC	BSc. BEd.	01.01.61	Gaibandha
31	Baptist Mission	Md. Zahangir Alam	Dept. Head	MSS	20.12.74	Dhaka
32	Baptist Mission	Mukl Gain	Administrator	MSc.(Ag.)	18.02.63	Gazipur
33	PCD	Md. Moniruzzaman	Branch Mang.	BA	15.01.72	Pabna
34	PCD	Md. Khabir Uddin Khokon	FS	BSS	05.10.79	Pabna
35	Sristy Tangail	Md. Abu Yousuf	ED	BA	06.11.57	Tangail
36	ARRDO	Ms. Samsad Jahanara	FT	BSc.	01.01.80	Jamalpur
37	POSD	Md. Shajadur Rahman	Accountant	BA	18.07.75	Rajshahi
38	KGUK	Md. Mustafizur Rahman	FO	HSC	01.02.80	Natore
39	GMKS	Md. Shajahan Mizi	Area Manager	BSS	01.01.76	Chandpur

Annex 2: Participant list (Continued)

Batch: 4 & 5 Venue: BDS Training Center, Barisal Date: 8-11 September 200

Sl	NGO	Name of Participant	Designation	Academic Qualification	Service Expr. (Yr)	Date of Birth	Working Area
1	BDS	Md. Aminul Islam	Agriculturist	B.Sc Ag.	3.6	18/03/1970	Barisal
2	SDS	Prof. M.A. Quader	Ex. Director	M.Sc (Fish)	7	02-0791953	Barisal
3		Md. Shahin Mahmud	FW	Bsc	2	01/12/1980	Barisal
4	CDS	Mahiuddin Khan	PO	HSC	2.8	25/07/1976	Gopalgong
5		Mojaffor Ali	FW	Bcom	2.11	05/11/1984	Gopalgonj
6	WE	Md. Jahangir Alam	PO	BA	8	04/03/1973	Jhenaidah
7		Md. Abdur Rahman	Manager	Bcom	7	02/01/1979	Jhenaidah
8	Setu-Bandhan	Dipak Charabortty	Project Eng.	Dip. Engr.	8	01/01/1967	Jessore
9		Kajal Kanthi Biswas	Manager	B.Ag.ED	8	28/07/1966	Jessore
10	NADO	Md. Shahadat Hossain	FS	HSC	1	01/03/1977	Gopalganj
11		Fahmida Sultana	FO	HSC	1.6	08/04/1983	Gopalgong
12	STAR	Atul Chandra Adhikary	HV	HSC	1	15/03/1952	Gopalganj
13	SETU	Md. Yaunnobi	FO	BA	9	16/10/1972	Kushtia
14		Monju. Monowara	FO	BSS	8	01/08/1972	Kushtia
15	GKK	Chou. Hosne Ara Iqbal	ED	Bsc	12	16/01/1943	Faridpur
16		Md. Abul Fazal	FW	HSC	2	26/04/1943	Faraidpur
17	BMKP	Koushulya Bagchi	ED	HSC	3.6	12/05/1978	Gopalgonj
18	BUS	Bilash Madhu	FW	BA	10	27/09/1974	Kalkini
19		Premendra Sarker	FW	HSC	15	10/10/1956	B. Baria
20	SDC	Dipali Rani Devy	FO	SSC	7	05/01/1966	B. Baria
21		Humayan Kabir	PO	BA	8	05/03/1956	B. Baria
22	NDP	Md. Nazrul Islam	PO	BSS	5	10/08/1973	Sirajgonj
23	BRIDGE	Md. Anser Ali Mollick	PM	BA	10	20/02/1971	Khulna
24		Md. Sanwar Hossain	FM	Alim	6	10/06/1965	Barisal
25	SSPKS	Md. Jahurul Haque	FO	BSc	12	-	Bagerhat
26		Ms. Shahida Akhter	FO	MA	15	-	Bagerhat

Annex 3: Training course program

Reporting day

Time	Program	Facilitators
16:00 – 16:30	Reporting and registration of participants at training venue.	Research Assistants
16:30 – 16:50	Welcome address	Facilitator Team Field Coordinator Training Coordinator
16:50 – 17:00	Course orientation and general instructions	Hasan A. Chowdhury
17:00 – 17:30	Pre-evaluation of the training	Facilitators Team
17:30 – 18:00	Group work on the field experience on different issues related to aquaculture and their expectation from Foundation training course	Different working groups
18:00 – 18:20	Presentation of the recommendations made by different working groups	Respective Group Leader
18:20 – 18:30	Distribution of the training materials	Extension Officer Research Assistants
18:30	End of the session and dinner	

Annex 3: Training course program (Continued)

GROUP-A

Day-1	*Module-1*: Aquaculture sector and its potentiality for poverty elevation in Bangladesh		
Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-1	08:30 – 09:30	An introduction to the fisheries sector of Bangladesh and role of ICLARM in aquaculture development. An orientation about DSAP	Hasan A. Chowdhury Extension Officer
Session-2	09:30 – 10:30	Basic Principles of Aquaculture	Hasan A. Chowdhury Research Assistant
	10:30 – 11:00	Break for tea	
	Module-2: Sustainable aquaculture practices for small enterprise development		
Session-1	11:00 – 13:00	Soil-water quality management	Hasan A. Chowdhury Research Assistant
	13:00 – 14:00	Break for lunch and prayer	
Session-2	14:00 – 15:30	Fry/fingerling handling, transportation and stocking management in aquaculture	Hasan A. Chowdhury Extension Officer
	15:30 – 16:00	Short break for tea	
Session-3	16:00 – 17:30	Post-stocking management procedure in aquaculture	Hasan A. Chowdhury Extension Officer Research Assistant
		End of the day sessions	
Day-2			
Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-4	08:30 – 10:30	Nursery management for quality fish/shrimp seed production	Hasan A. Chowdhury Research Assistant
	10:30 – 11:00	Break for tea	
Session-5	11:00 – 13:00	Common fish/shrimp diseases and their preventive measures	Extension Officer Research Assistant
	13:00 – 14:00	Break for lunch and prayer	
	Module-3: Integrated Aquaculture-Agriculture (IAA)		
Session-1	14:00 – 15:30	Integrated Aquaculture-Agriculture and its application for small scale aquaculture	Hasan A. Chowdhury Research Assistant
	15:30 – 16:00	Break for tea	
Session-2	16:00 – 17:30	Integrated Rice-Fish farming	Research Assistant Extension Officer
		End of the day sessions	

Annex 3: Training course program (Continued)

GROUP-A

Day-3	*Module-4:* Monitoring and evaluation of aquaculture extension project		
Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-3	08:30 – 10:00	Monitoring, evaluation and record keeping procedure of aquaculture extension project. Presentation of the pond record book	Prof. Ferdous Alam Hasan A. Chow. Research Assistant
	10:30 – 11:00	Break for tea	
	Module-5: Training and extension methodology		
Session-1	11:00 – 13:00	Extension methodology for technology transfer	Hasan A. Chowdhury Extension Officer
	13:00 – 14:00	Break for lunch	
Session-2	14:00 – 15:30	Training/teaching methodology for effective technology transfer and skill development Role play/demonstration session on farmers training session conduct	Naseem Aleem Hasan A. Chowdhury Extension Officer Research Assistant
	15:30 – 16:00	Break for tea	
Closing session			
Session-3	16:00 – 16:45	Training feedback from participant	Participants
	16:45 – 17:15	Post-training evaluation	Research Assistant
	17:15 – 17:30	Closing remarks from Facilitators	Facilitators Team
	17:30 – 17:35	Closing remarks from Field/ Training Coordinator	Naseem Aleem/ Hasan A. Chowdh.
	17:35 – 18:30	Cultural Program	Participants
	18:30	Closing of the training program	

Annex 4: Training course program (Continued)

Group A & B

Day-1	*Module-1:* Aquaculture sector and its potentiality for poverty elevation in Bangladesh.		
Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-1	08:30 – 09:30	An introduction to the fisheries sector of Bangladesh and role of ICLARM in aquaculture development. An orientation about DSAP	Hasan A. Chowdhury Research Assistant
Session-2	09:30 – 10:30	Basic Principles of Aquaculture	Hasan A. Chowdhury Research Assistant
	10:30 – 11:00	Break for tea	
Session-3	11:00 – 13:00	Integrated Aquaculture-Agriculture and its application for small scale aquaculture	Hasan A. Chowdhury Extension Officer
	13:00 – 14:00	Break for lunch and prayer	
	Module-3: Integrated Aquaculture-Agriculture (IAA)		
Session-1	14:00 – 15:30	Integrated Rice-Fish farming	Hasan A. Chowdhury Research Assistant
	15:30 – 16:00	Break for tea	
Session-2	16:00 – 17:30	Common fish/shrimp diseases and their preventive measures	Research Assistant Extension Officer
		End of the day sessions	
Day-2	*Module-2*: Sustainable aquaculture practices for small enterprise development.		
Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-1	08:30 – 09:30	Sustainable pond aquaculture practices Farmers selection criteria of DSAP Pre-stocking management of pond	Extension Officer Research Assistant
	10:30 – 11:00	Break for tea	
Session-2	11:00 – 13:00	Fry/fingerling handling, transportation and stocking management in aquaculture	Extension Officer Research Assistant
	13:00 – 14:00	Break for lunch and prayer	
Session-3	14:00 – 15:30	Post-stocking management procedure in aquaculture	Research Assistant Extension Officer
	15:30 – 16:00	Short break for tea	
Session-4	16:00 – 17:30	Nursery management for quality fish/shrimp seed production	Hasan A. Chowdhury Extension Officer
		End of the day sessions	

Annex 4: Training course program (Continued)

GROUP-A&B

Day-3	*Module-5:* Training and extension methodology		
Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-5	08:30 – 10:30	Extension methodology for technology transfer	Hasan A.Chowdhury Research Assistant
	10:30 – 11:00	Break for tea	
	Module-4: Monitoring and evaluation of aquaculture extension project		
Session-1	11:00 – 13:00	Monitoring, evaluation and record keeping procedure of aquaculture extension project. Presentation of the pond record book	Prof. Ferdous Alam Extension Officer
	13:00 – 14:00	Break for lunch	
	Module-5: Training and extension methodology		
Session-1	14:00 – 15:30	Training/teaching methodology for effective technology transfer and skill development Role play/ demonstration session on farmers training session conduct	Naseem Aleem Hasan A.Chowdhury Research Assistant
	15:30 – 16:00	Break for tea	
Closing session			
Session-2	16:00 – 16:45	Training feedback from participant	Participants
	16:45 – 17:15	Post-training evaluation	Research Assistant
	17:15 – 17:30	Closing remarks from Facilitators	Facilitators Team
	17:30 – 17:35	Closing remarks from Field/ Training Coordinator	Naseem Aleem/ Hasan A. Chowd.
	17:35 – 18:30	Cultural Program	Participants
	18:30	Closing of the training program	

Annex 4: Training course program (Continued)

single batch

Reporting Day

Time	Program: Opening Session	Facilitators
16:00 – 16:30	Reporting and registration of participants at training venue.	Md. Asadul Haque Extension Officer
16:30 – 16:50	Welcome address	Facilitator Team
16:50 – 17:00	Course orientation and general instructions	Hasan A. Chowdhury Md. Asadul Haque
17:00 – 17:30	Pre-evaluation of the training	
17:30 – 18:00	Group work on the field experience on different issues related to aquaculture and their expectation from Foundation training course	Facilitators Team Group A/B/C/D
18:00 – 18:20	Presentation of the recommendations made by different working groups	Respective Group Leader
18:20 – 18:30	Distribution of the training materials	Facilitators Team
18:30	End of the session and dinner	

Annex 4: Training course program (Continued)

Day-1	*Module-1*: Aquaculture sector and its potentiality for poverty elevation in Bangladesh		
Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-1	08:30 – 09:30	An introduction to the fisheries sector of Bangladesh and role of ICLARM in aquaculture development.	Hasan A. howdhury
Session-2	09:30 – 10:30	An orientation about DSAP	Md. Shamsuddoha
	10:30 – 11:00	Break for tea	
	Module-2: Sustainable aquaculture practices for small enterprise development		
Session-1	11:00 – 13:00	Sustainable pond aquaculture practices Pre-stocking management of pond	Hasan A.Chowdhury Md. Shamsuddoha
	13:00 – 14:00	Break for lunch and prayer	
Session-2	14:00 – 15:30	Fry/fingerling handling, transportation and stocking management in aquaculture	Hasan A. Chowdhury Md. Shamsuddoha
	15:30 – 16:00	Short break for tea	
Session-3	16:00 – 17:30	Post-stocking management procedure in aquaculture	Hasan Chowdhury Md. Shamsuddoha
		End of the day sessions	

Day-2

Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-4	08:30 – 10:30	Nursery management for quality fish/shrimp seed production	Md. Abdur Razzak
	10:30 – 11:00	Break for tea	
Session-5	11:00 – 13:00	Common fish/shrimp diseases and their preventive measures	Md. Abdur Razzak
	13:00 – 14:00	Break for lunch and prayer	
	Module-3: Integrated Aquaculture-Agriculture (IAA)		
Session-1	14:00 – 15:30	Integrated Aquaculture-Agriculture and its application for small scale aquaculture	Hasan Chowdhury Md. Asadul Haque
	15:30 – 16:00	Break for tea	
Session-2	16:00 – 17:30	Integrated Rice-Fish farming	Hasan A. howdhury Md. Asadul Haque
		End of the day sessions	

Annex 4: Training course program (Continued)

Day-3

	Module-4: Monitoring and evaluation of aquaculture extension project.		
Sessions	**Time**	**Content/subject of the sessions**	**Facilitator**
Session-1	08:30 – 10:00	Monitoring, evaluation and record keeping procedure of aquaculture extension project. Presentation of the pond record book	Hasan A. Chowdh. Md. Asadul Haque
	10:30 – 11:00	Break for tea	
	Module-5: Training and extension methodology		
Session-1	11:00 – 13:00	Extension methodology for technology transfer	Hasan A. Chowdh. Md. Abdur Razzak
	13:00 – 14:00	Break for lunch	
Session-2	14:00 – 15:30	Training/teaching methodology for effective technology transfer and skill development Role play/demonstration session on farmers training session conduct	Hasan A. Chowdh. Md. Abdur Razzak Md. Asadul Haque
	15:30 – 16:00	Break for tea	
Closing session			
Session-3	16:00 – 16:45	Training feedback from participant	Participants
	16:45 – 17:15	Post-training evaluation	Md. Asadul Haque
	17:15 – 17:30	Closing remarks from Facilitators	Facilitators Team
	17:30 – 17:35	Closing remarks from Field/Training Coordinator	Naseem Aleem/ Hasan A. Chowdhury
	17:35 – 18:30	Cultural Program	Participants
	18:30	Closing of the training program	

Annex 4: Training course content

Module-1: An Overview of Aquaculture Sector and its Potentiality for Poverty Allevation in Bangladesh.

Session-1: An introduction to the fisheries sector and role of WorldFish Center and DSAP in Bangladesh

- Aquatic resources and their contribution to national economy of Bangladesh
- Problem and prospects of different types of water resources in Bangladesh
- Potentials of aquaculture development in Bangladesh
- Involvement of donor, GO/NGOs and private sector for aquaculture development
- Role of ICLARM-The World Fish Center for aquatic resource development in Bangladesh.
- Background of the project
- Aim, objectives and goal of DSAP
- ICLARM/USAID visions to support the resources poor peoples of Bangladesh
- Project implementing partners and their role in DSAP
- Project implementation strategy for 2002-2005
- Planned activities under DSAP for research, training and extension
- Expected output from the project

Module-2: Basic Principles of Aquaculture

Session-1: Basic principles of aquaculture

- What is aquaculture ?
- What are the basic principles of aquaculture ?
- How do they are important for aquaculture ?
- Factors to be considered for aquaculture production
- Primary productivity of the water bodies, social, cultural and economical issues
- Carrying Capacity and biological production planning for sustainable aquaculture

Session-2: Soil water quality management for sustainable aquaculture

- What are the importance of soil -water quality for sustainable aquaculture production ?
- Physical, chemical and biological characteristics of soil-water
- How the interaction of different soil-water characteristics effect on primary production
- Optimum range of different soil-water characteristics and how we could maintain ?
- Critical factors and how could overcome such factors in soil-water quality management ?

Annex 4: Training course content (Continued)

Session-3: Pond aquaculture practices (Pre-stocking management (Pond preparation)

- General guidelines for pre-stocking, stocking and post-stocking management of different types of pond aquaculture
- Pond dyke/embankment repair, boom preperation
- Eradication of undesirable weeds from the pond
- Liming for soil-water quality management
- Manuring (organic fertilization)- preparatory/basal dose
- Contract for fish seed (spawn/fry/fingerlings)
- Pre-stocking fertilization (inorganic fertilization)
- Water filling (if pond dried)
- Water quality test- natural feed, physical, chemical and biological condition
- Insect control for nursery management and lethality test before stocking fish

Session-4: Fry/fingerling handling, transportation and stocking management

- Factors to be considered for selecting appropriate fish seed for different aquaculture
- Importance of quality fish seed collection and stocking
- Sources of quality fish seed
- Stocking density, composition, size, age
- Time of fish seed transport and stocking
- Techniques of fry/fingerling conditioning before transportation
- Transport system and spawn/fry/fingerling container (carrier) for different distance
- Factors related to transportation of fish seed and precaution measures
- Techniques of fry/fingerling conditioning when stocking into pond
- Precaution measures just after stocking of fish seed in pond.

Session-5: Post-stocking management procedure in pond aquaculture practices

- Post-stocking fertilization for natural feed abundance
- Supplementary feed- importance, feasibility, sources and economical analysis
- Available natural feed resources and potentiality of weed based aquaculture
- Selection of appropriate supplementary feed items, feed formulation and application
- Calculation of supplementary feed requirement for different species and size/age
- Subsequent environmental effect of external feeds on soil-water quality
- Regular water quality monitoring techniques for farmers
- Sampling procedure for observing fish growth and health management
- Partial harvesting, restocking and final harvesting calendar for year round production
- Fish market and marketing channel, local and community marketing
- transportation and handling of live and dead fish
- Networking and linkages of fingerling/input supplier and fish traders with fish farmers
- Record keeping, analysis and assumption for next years production planning.

Annex 4: Training course content (Continued)

Session-6: Nursery management and quality fish seed production technologies

- Present status of fish seed production in Bangladesh
- Importance of nursery management to ensure quality fish seed supply
- Different types of nursery management practices in ponds and rice-fields
- Different steps of nursery management and special issues to be considered in:
- Pre-stocking management for carps, Golda PL and cat fish seed nursery
- Stocking management of different species and technical options
- Post-stocking management procedure for single/multiple stage nursery
- Fry/fingerling handling, transport and marketing

Session-7: Common fish/shrimp diseases and their preventive measures

- Major causative factors relate to fish diseases in aquatic environment
- Symptoms of fish diseases
- Classification of common fish diseases
- Interaction effect of different causative factors to spread out diseases
- Treatments and control measures to overcome disease infestations
- Environmental management to prevent fish diseases
- Some common problems of fish ponds and their probable solutions

Module-3: Integrated Agriculture-Aquaculture (IAA) and its Application for Rural Development

Session-1: Integrated Agriculture-Aquaculture (IAA)

- Concept of Integrated Aquaculture-Agriculture and Integrated Resource Management
- Global importance of IAA for nutritional uplift of resource poor peoples
- Different types of possible integration in agriculture subsystems
- Identification of the physical and bio-resources under different agriculture subsystems
- Transect of bio-resources and their potential recycling
- Drawing of bio-resources flows from one subsystem to another
- Analysis of the inputs and outputs of individual subsystem under IAA household
- Results/assumption of the IAA system and resource management planning for future
- How we can utilize the concept of IAA for poor small farmers of Bangladesh.

Session-2: Integrated rice-fish farming

- Historical evolution of rice-fish farming
- Background and different approaches of rice-fish farming practices in Bangladesh
- Importance of rice-fish farming (production, economy and environment
- Recent rice-fish farming technology options recommended by different institutions
- Systematic management procedure of different rice-fish farming technology options:
- Pre-stocking, Stocking and Post-stocking management
- Production, economy and spread over effect of modern rice-fish farming technologies

Annex 4: Training course content (Continued)

Module-4: Monitoring and evaluation of aquaculture extension project.

Session-1: Monitoring, evaluation and record keeping procedure of aquaculture extension project.

i. What is monitoring and evaluation
ii. Basic difference between monitoring and evaluation
iii. Different types of monitoring and evaluation methods
iv. Monitoring tools and their effective utilization in MIS
v. Presentation on the newly published Farmers Pond Record Book-2002

Module-5: Extension and training methodologies

Session-1: Extension methodology for technology transfer and philosophy of life and action

i. Extension methods used in different stages of adoption
ii. Rules of human relations and positive attitude in life
iii. Winners versus losers in life
iv. Evaluation of demonstration effect
v. Impact of training and demonstration in technology transfer

Session-2: Training methodology for effective technology transfer

i. Importance and benefits of training for motivation, change in attitude and skill
ii. Different types of training/teaching methods applicable for farmers training
iii. Training aims and objectives
iv. Target Group Profile (TGP) and Training Need Assessment (TNA)
v. Steps involved in training, training cycle
vi. Quality and responsibilities of a good trainer
vii. Evaluation of trainer, trainees and training session

Opening and closing session and group discussions on respective issues

Annex 5: Facilitator Team Who Conduct the Foundation Training Course

Training Course, Date and Venue	Facilitator Team and the selected session to be contributed	
	Facilitator/Organization	**Expected session**
15-18 June 2002 RRC T&RC, Ramnagar, Jessore Total Participants- 18	1. Dr. Md. Motiur Rahman Training Coordinator CBFM, ICLARM Dhaka.	Extension Methodology Participatory extension approaches
	2. Hasan Ahmmed Chowdhury Training Coordinator DSAP, ICLARM Dhaka.	All sessions as scheduled in training program along with overall coordination of training course.
	3. Md. Mukhlesur Rahman Research Assistant ICLARM Field Liaison Office, Mymensingh.	Fish diseases and preventive measures Pond preparation procedure
	4. Md. Abdul Latif/DSAP Extension Officer ICLARM Field Liaison Office, Gazipur.	Pre-stocking management Pre and Post Evaluation of training
	5. Md. Abul Kashem/DSAP Extension Officer ICLARM Field Liaison Office, Jessore.	Training Need assessment A short presentation on DSAP Nursery management
	6. Md. Abdur Razzak/DSAP Extension Officer ICLARM Field Liaison Office, Magura.	Stocking management Post stocking management
	7. Md. Nazim Uddin/DSAP Extension Officer ICLARM Field Liaison Office, Bogra.	Inaugural and closing session Practical damy session on- How to conduct framers training sessions

Annex 5: Facilitator Team Who Conduct the Foundation Training Course (Continued)

Training Course, Date and Venue	Facilitator Team and the selected session to be contributed	
	Facilitator/Organization	**Expected session**
23-26 June 2002 BRAC TARC, BCDM, Savar, Dhaka. Total Participants- 39	1. Dr. Md. Motiur Rahman Training Coordinator CBFM, ICLARM Dhaka.	Extension Methodology Participatory extension approaches
	2. Naseem Ahmed Aleem Training Coordinator DSAP, ICLARM Dhaka.	Training Methodology (partial) Participatory discussion sessions on management issues
	3. Hasan Ahmmed Chowdhury Training Coordinator DSAP, ICLARM Dhaka.	All sessions as scheduled in training program along with overall coordination of training course.
	4. Sayed Arifuzzaman/DSAP Extension Officer ICLARM Field Liaison Office, Mymensingh.	A short presentation on DSAP Practical damy session on- How to conduct framers training sessions
	5. Md. Jahirul Haque/DSAP Extension Officer ICLARM Field Liaison Office, Mymensingh.	Stocking management Post stocking management Nursery management
	6. Mr. Bijan Kumar	Common fish diseases and their prevention measures
	7. Md. Asadul Haque/DSAP Extension Officer ICLARM Field Liaison Office, Barisal.	Integrated Aquaculture-Agriculture (IAA)

Annex 5: Facilitator Team Who Conduct the Foundation Training Course (Continued)

Training Course, Date and Venue	Facilitator Team and the selected session to be contributed	
	Facilitator/Organization	**Expected session**
08-11 September 2002 BDS Training Center, Bangladesh Development Society (BDS), 5 South Sadar Road, Barisal. Total Participants- 28	1. Hasan Ahmmed Chowdhury Training Coordinator DSAP, ICLARM Dhaka.	All sessions as scheduled in training program along with overall coordination of training course.
	2. Md. Samsuddoha Program Coordinator Coast-trust, Head Office Dhaka.	A short presentation on DSAP Pre-stocking management Stocking management
	3. Md. Abdur Razzak/DSAP Extension Officer ICLARM Field Liaison Office, Magura.	Post stocking management Nursery management Fish diseases and preventive measures
	4. Md. Asadul Haque/DSAP Extension Officer ICLARM Field Liaison Office, Barisal.	Inaugural and closing session Pre and Post Evaluation of Training Training Need assessment Integrated Aquaculture-Agriculture (IAA)

Annex 6: Summary of expectation as identified by the participant

A. General Information about ICLARM

1. What is ICLARM? Future plan of ICLARM.
2. Does ICLARM work only with fish culture?
3. Role of ICLARM in poverty elevation.
4. What are the low cost sustainable fish production technologies of ICLARM.
5. Farmers opportunity from ICLARM.
6. Why ICLARM work with NGO?
7. Why does ICLARM take the initiative of delivering training.
8. What benefits/opportunities will ICLARM give to the farmers.

B. About aquaculture management procedure

a. Pre-stocking Management

i) Depth of ideal pond.
ii) Pond excavation, pond preparation and criteria of an ideal pond.
iii) Methods for removal of predatory/undesirable fish species.

b. Stocking Management

i) Stocking density per decimal (pond/rice field).
ii) Appropriate time for fry/fingerling stocking.
iii) Techniques for handling fry and reducing mortality during transportation.
iv) Techniques for pond fertilization.
v) Methods for identifying quality fry.
vi) Which species is more profitable for culture.

c. Post-stocking Management

i) Supplemental feed.
ii) Examination for natural feed in ponds.
iii) Fish discuses and the preventive measures.

C. About technologies

1. Fish culture in rice field.
2. Golda – Carp mixed culture in rice field.
3. Cage aquaculture.
4. Azola based fish culture in rice field.
5. Carp/prawn nursery.
6. Fish – Duck integrated culture in pond.
7. SIS/SRS culture and preservation.
8. Commercial freshwater eel culture technology
9. Snail/oyster culture.
10. Vermiculture.
11. Profitable fish culture system
12. Hatchey Management.
13. Culture techniques in coastal/tidal areas.

Annex 6: Summary of expectation as identified by the participant (Continued)

D. About culture/production management techniques.

1. Physical properties of soil and water.
2. Consequential stages of pond preparation.
3. Mechanism of growing natural feed in aquatic environment.
4. Which species are profitable in pond aquaculture system?
5. Soil and water quality for fish culture.
6. How fish culture could be extended and production could be increase in double?
7. What are feeds of fishes? Relationship between feeding and growth of fish.
8. Growth rate of fishes.
9. Standard stocking density per decimal.
10. Methods of fish culture in shallow & deep-water pond.
11. Merits/Demerits of rice-fish culture.
12. Fish diseases, causes of prevention methods.
13. Details about pH.
14. Practical orientation on fish feed (pellet) formulation.
15. Considering factors in pond selection.
16. Causes of underweight of fish.
17. Fingerling/try transportation and stocking management.
18. Identifying character of fresh/healthy and quality fingerling.
19. Fish handling & marketing.
20. Sustainable Rice-fish culture technology.
21. Azola based fish culture in ponds/paddy field.
22. Technology for polyculture is red-soil on sandy soil.
23. Prawn culture technology in paddy field.
24. Fish culture techniques in shaded ponds.
25. Composite culture.

d. Others:

i) Techniques for identifying male & female fish.
ii) Role of P^H & O_2 in fish culture.
iii) P.G. preservation technique.
iv) Appropriate pond watercolor for fish culture.
v) Main ways for co-operating the farmers.

Annex 7: Training course evaluation

Subject/Index of course evaluation	Number of respondent evaluated the course				Percent (%)
	Jessore	Savar	Barisal	Total	
No. of trainees evaluated the training	18	39	25	82	100
1. Schedule of training (Foundation ToT)					
- Schedule was in right season	7	18	7	32	39.02
- Need to be organize earlier	11	21	17	49	59.75
- Need to be later than now	0	0	1	1	1.22
- No comment	-	-	-		
2. Duration of training (foundation ToT)					
- Duration was optimum	0	1	1	2	2.44
- Duration should be more longer	10	17	11	38	46.34
- Duration may be shortened	0	0	0	0	0
- Suggested duration (days): 7-15	8	21	13	42	51.22
3. Course content of foundation ToT					
- Content was appropriate	11	18	13	42	51.22
- Content was less than required	7	10	8	25	30.49
- Content was more	0	3	0	3	3.65
- Need to be some addition/delete	0	8	3	11	13.42
- No comment	-	-	1	1	1.22
4. Training Methodology/approach					
- Methodology was appropriate	8	10	7	25	30.49
- Should be more participatory	4	20	7	31	37.80
- Should be more practical	5	7	10	22	26.83
- Any suggestions for further improve	1	2	0	3	3.66
- No comment	-	-	1	1	1.22
5. Training equipment used:					
- Equipment used were appropriate	7	15	8	30	36.58
- May be more modernized in future	8	24	11	43	52.44
- Equipment use should be minimize	0	0	0	0	0
- Any suggestion for further improve	3	0	5	8	9.76
- No comment	-	-	1	1	1.22
6. Training materials distributed:					
- Training materials was sufficient	11	20	11	42	51.22
- Training materials was insufficient	7	15	8	30	36.58
- All these were not useful	0	0	0	0	0
- Need to be added some more	0	4	2	6	7.3
- No comment	-	-	4	4	4.88
7. Accommodation for the participants					
- Accommodation was satisfactory	11	29	12	52	63.42
- Accommodation was unsatisfactory	0	0	7	7	8.54
- Accommodation was very good	7	9	0	16	19.51
- Any other suggestion regarding this	0	1	2	3	3.65
- No comment	-	-	4	4	4.88

Annex 7: Training course evaluation (Continued)

Subject/Index of course evaluation	Total respondent evaluated the course				Percent (%)
	Jessore	Savar	Barisal	Total	
No. of trainees evaluated the training	18	39	25	82	100
8. Quality of food supplied in training					
- Very good	10	31	14	55	67.07
- Satisfactory	8	5	2	15	18.29
- Unsatisfactory	0	3	5	8	9.76
- Any suggestion to improve	0	0	2	2	2.44
- No comment	-	-	2	2	2.44
9. Transportation to the training venue					
- Venue was distant from duty station	6	8	5	19	23.17
- Venue was near to duty station	1	12	6	19	23.17
- Transport was comfortable to venue	10	15	10	35	42.68
- Transport was not comfortable	1	2	2	5	6.10
- Any other suggestions	0	2	0	2	2.44
- No comment	-	-	2	2	2.44
10. Priority for next venue selection					
- Existing regional venue is favorable	12	12	4	28	34.14
- Venue should be near to Dhaka	3	14	11	28	34.14
- Venue may rotationally change from one to another region	3	13	8	24	29.28
- No comment	-	-	2	2	2.44
11. Evaluation of course content					
a. Technical subject of the training					
- Very good	5	13	5	23	28.06
- Good	7	12	10	29	35.36
- Satisfactory	6	13	10	29	35.36
- Less important	-	-	-	-	-
- Unnecessary	-	-	-	-	-
- No comment	-	1	-	1	1.22
b. Role of ICLARM/DSAP Strategy					
- Very good	7	16	2	25	30.48
- Good	6	9	8	23	28.06
- Satisfactory	5	10	8	23	28.06
- Less important	-	4	5	9	10.96
- Unnecessary			-	-	-
- No comment	-	-	2	2	2.44
c. Participatory discussion sessions					
- Very good	7	15	7	29	35.36
- Good	6	10	10	26	31.70
- Satisfactory	5	13	5	23	28.06
- Less important	-	1	1	2	2.44
- Unnecessary	-	-	-	-	-
- No comment			2	2	2.44

Annex 7: Training course evaluation (Continued)

Subject/Index of course evaluation	Total respondent evaluated the course				Percent (%)
	Jessore	Savar	Barisal	Total	
No. of trainees evaluated the training	18	39	25	82	100
11. **Evaluation of course content (Contd)**					
d. Slide/Video shows on technical issue					
- Very good	5	11	6	22	26.83
- Good	3	11	11	25	30.48
- Satisfactory	10	12	5	27	32.93
- Less important		5	1	6	7.32
- Unnecessary	-	-	-		-
- No comment	-	-	2	2	2.44
e. Sessions on Training & Extension					
- Very good	4	18	4	26	31.71
- Good	8	9	13	30	36.58
- Satisfactory	6	9	4	19	23.17
- Less important	-	2	1	2	2.44
- Unnecessary			1	1	1.22
- No comment		1	3	4	4.88
12. Suggestion regarding course content					
- Content was appropriate and relevant	7	12	19	38	46.34
- Need to be some new addition	6	21	2	29	35.36
- Need to be exclude some to save time	4	4	1	9	10.98
- Need to revised the course content	1	2	1	4	4.88
- No comment	-	-	2	2	2.44
13. Number of facilitator in training:					
- Number of facilitator was appropriate	10	15	12	37	45.12
- No. of facilitator to be increased	7	22	10	39	47.56
- No. of facilitator may be decreased	1	2	0	3	3.66
- Any suggestion for improvement	-	-	1	1	1.22
- No comments	-	-	2	2	2.44
14. Overall success of the training course					
- Training course was excellent	3	4	4	11	13.41
- Training was more than expectation	1	5	5	11	13.41
- Training was as per our expectation	3	9	5	17	20.73
- Training was overall satisfactory	7	11	9	27	32.94
- Training was acceptable in quality	4	10	1	15	18.29
- Training was not satisfactory	-	-	-	-	-
- No comment	-	-	1	1	1.22

Annex 8: Facilitator evaluation

		Total number of trainees evaluated the facilitators									Av. score T/S
Sl	Name of the facilitator/Resource Person contributed in training session/s	No. of batch	Total staff (S)	Score obtained by the Individual facilitator							
				6x	5x	4x	3x	2x	1x	Total (T)	
1	Dr. Md. Motiur Rahman/CBFM	1	39	5	22	7	2	2	1	179	4.59
	Naseem Ahmed Aleem/DSAP	1	32	0	3	11	8	8	2	101	3.1
	Hasan Ahmed Chowdhury/DSAP	9	122	102	12	3	2	3	0	696	5.70
	Md. Abdul Kader/FTEP-DoF	1	25	1	8	9	1	-	2	87	3.48
	Md. Riaz Uddin/FTEP-DoF	1	25	3	2	3	7	1	2		2.70
	Dr. A.N. Hasna Banu/BFRI	1	25	1	2	5	3	5	4		2.45
	Md. Abdur Razzak/BFRI	1	32	1	7	4	3	7	10		2.8
	Sayed Arifuzzaman/DSAP	1	39	1	6	12	11	1	8		
	Md. Nazim Ahmed/DSAP	1	18	-	6	7	4	1			
	Md. Abul Kashem/DSAP	1	18	1	7	8	2	-	-		
	Md. Abdur Razzak/DSAP	3	64	9	11	10	8	10	16		3.59
	Md. Abdul Latif Siddique/DSAP	1	18	0	5	2	4	5	2		
	Md. Asadul Haque/DSAP	1	25	0	0	6	10	5	4		3.44
	Mr. Bijan Majumder/DSAP	1	39	2	9	12	10	2	4		
	Md. Mukhlesur Rahman/DSAP	1	18	-	-	1	5	10	2		2.27
	Md. Shamsuddoha/Coast-Trust	1	25	0	2	10	13	-	-		3.16
	Md. Moinuddin/SARA	1	25	0	3	2	1	6	10		2.0
	Md. Emdad Hossain/CARP	1	25	1	8	3	3	7	3		3.5
	Mr. Atul Chandra Sarker/JC	1	32	0	9	8	4	6	4		3.3
	Total			122	122	133					

Annex 9: List of selected associate partners NGO

ICLARM Regions	Participating NGO and Number of Staff		
	Name of NGO	Activities Area	Staff No
Jessore	1. PURNIMA	Khulna	2
	2. SSPKS	Bagerhat	2
	3. ASHROY	Khulna	2
	4. RUSTIC	Khulna	2
	5. SUSHILON	Sathkhira	2
Magura	6. DNP	Faridpur	2
	7. SDC	Faridpur	2
	8. SRIZONY-BD	Jhenidah	2
	9. WE	Jhenidah	2
	10. MOUCHAK	Jhenidah	2
	11. SETU	Kushtia	2
	12. PSUS	Maherpur	2
Barisal	13. SUS	Barisal	2
	14. SMKK	Barisal	2
	15. JMKM	Gopalganj	2
	16. SDS	Sariatpur	2
	17. BRIDGE	Khulna/Barisal	2
	18. STAR	Gopalganj	2
	19. BUS	Madaripur	2
	20. CDS	Gopalganj	2
	21. NADO	Gopalganj	2
Comilla	22. AID-Comilla	Comilla	2
	23. SHEBA	Comilla	2
	24. VDC	Brahmanbaria	2
	25. GKK	Brahmanbaria	2
	26. TRIBEDI	Dhaka/Laksmipur	2
	27. OMI	Chandpur	2
	28. GMKS	Chandpur	2
Gazipur	29. Baptist Mission	Savar, Dhaka	2
	30. SHRISTY- Tangail	Tangail	2
	31. Hunger Project	Dhaka/Countrywide	2
	32. Annesha Foundation	Narsingdi/Dhaka	2
	33. Swanirvar B	Dhaka	2
Mymensingh	34. TARA	Dhaka/Netrokona	2
	35. ARRDO	Jamalpur	2
Bogra	36. NDP	Sirajganj	2
	37. SSKS	Sirajganj	2
	38. PDBS	Sirajganj	2
Rajshahi	39. PCD	Pabna	2
	40. PARTNER	Rajshahi	2
	41. BCVD	Dhaka/Pabna	2
	42. KGUK	Natore	2
	43. POSD	Rajshahi	2
	Total		**86**