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BANGLADESH FLOOD ACTION PLAN

Ministry of Water Resources
Flood Plan Coordination Organization (FPCO)

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EIA Skills Workshop Final Report

April 1995

Prepared by

Environmental Study

FAP 16

 **ISPAN**

IRRIGATION SUPPORT PROJECT FOR ASIA AND THE NEAR EAST

Sponsored by the U.S. Agency for International Development

BANGLADESH FLOOD ACTION PLAN

Ministry of Water Resources
Flood Plan Coordination Organization (FPCO)



MW-92
**EIA Skills Workshop
Final Report**
April 1995



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IRRIGATION SUPPORT PROJECT FOR ASIA AND THE NEAR EAST

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ATTACHMENTS

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Attachment 2	Maps: Field Visits
Attachment 3	Participant Background Questionnaire
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List of Acronyms

AQUA	AQUA Consultants & Associates Ltd.
BARC	Bangladesh Agricultural Research Council
BCL	Bangladesh Consultants Ltd.
BETS	Bangladesh Engineering & Technological Services
BRAC	BRAC
BUP	Bangladesh Unnayan Parishad
BWDB	Bangladesh Water Development Board
CARE	CARE International
DDC	Development Design Consultants Ltd.
DOE	Department of Environment
DOF	Department of Fisheries
DPC	Development Planners & Consultants
DU	Dhaka University
EPC	Engineering & Planning Consultants Ltd.
FD	Forest Department
FPCO	Flood Plan Co-ordination Organization
HCL	House of Consultants Ltd.
IMED	Implementation Monitoring & Evaluation Division, Ministry of Planning
KA	Kranti Associates
LGED	Local Government Engineering Department
MOL	Ministry of Land
MOWR	Ministry of Water Resources
PB	Petrobangla
PC	Planning Commission
PMUK	Proshika Manobik Unnayan Kendra
POUSH	Bangladesh POUSH
WARPO	Water Resource Planning Organization

EIA SKILLS WORKSHOP FINAL REPORT

1. Introduction

During Phase IV the Environmental Study component of the Flood Action Plan (FAP 16) developed a training program to institutionalize the EIA Guidelines developed during Phases I and II. The training program's dual objectives were to (1) allow for technology transfer by developing in-country capability to conduct EIA training so that ownership of the EIA process was established and vested in professionals in public and private sector organizations in Bangladesh, and (2) to strengthen the institutional capability of relevant GOB and private sector agencies by training a critical mass of EIA specialists who were capable of reviewing EIA documents. Accordingly, the training plan developed during Phase IV included two types of activities: (1) a Training of Trainers (TOT) workshop to develop a core group of EIA trainers, and (2) skills workshops to develop EIA reviewers. The training of Trainers (TOT) workshop was conducted in May and June of 1994 by two ISPAN consultants Dick Wall, a training specialist and Joe Atchue, an environmental content specialist. They also developed the EIA Trainer's Manual which incorporated the course material developed during the skills workshops conducted in 1993. Following the TOT, the FAP 16 team took ownership of the training program and conducted a series of four EIA skills workshops. As training progressed, the team modified the course content and schedule where they deemed necessary, and restructured the Trainer's Manual according to the revisions made to the program.

The modifications made evolved gradually, and were based on participant evaluation of the workshops and trainer perceptions. For instance, as the workshops progressed, both modules and sessions were re-organized. In the 1993 workshops, the modules corresponded exactly to the stages in the EIA process outlined in the EIA

Guidelines. However, the FAP 16 training team found that there was a need to re-order the logical sequence of the modules to enable the participants to better understand the stages in the EIA process and see the relationships between them.

The EIA stages, Developing Baseline Description, Scoping, Bounding, and Major Field Investigations were incorporated into one module on Baseline Development as the trainers felt that they were different processes involved in baseline development for EIA. Similarly, as Feedback to Improve Project Design and EIA reporting involves the process of documenting, communicating and reporting, they were combined into the module on Documentation and Communication. Table 1 shows the revised version that was developed and used.

Within modules also, sessions that needed more emphasis were expanded while others were combined into one. For instance, the module on Impact Assessment was modified several times. Following Workshop I 1995, two sessions were added to the module as the trainers felt that more explanation was needed on the impact assessing methodology. However, following Workshop II it was found that the teaching approach to impact assessment needed to be modified. Accordingly, the module was renamed and called "Impact Evaluation," so that alternative methods of impact assessment could be taught in addition to "scoring" and "weighting." Hence, the number of sessions on impact assessment was modified again.

GIS sessions also underwent several modifications. During the 1993 workshops, GIS was allocated eight sessions and the objectives were to help the trainees to learn the importance and limitations of remote sensing, the importance of GIS, and how to develop digital maps that could be used as outputs to EIA. The program that has

Table 1: Revised Modules

EIA Process Stage in EIA Guidelines	Revised Modules
Stage 1: Project Design and Description	Module 2: Introduction to EIA in the Water Sector
Stage 2: People's Participation	Module 3: People's Participation
Stage 3: Environmental Baseline Description	Module 4: Developing Environmental Baseline
Stage 4: Scoping	Module 4: Developing Environmental Baseline
Stage 5: Bounding	Module 4: Developing Environmental Baseline
Stage 6: Major Field Investigations	Module 4: Developing Environmental Baseline
Stage 7: Impact Assessment	Module 5: Impact Assessment
Stage 8: Impact Evaluation	Module 5: Impact Assessment
Stage 9: Environmental Management Planning	Module 6: Environmental Management Plan
Stage 10: Feedback to Improve Project Design	Module 7: Documentation, Communication, and Reporting
Stage 11: EIA Reporting	Module 7: Documentation, Communication, and Reporting
Stage 12: EIA Review	Module 8: EIA Review

evolved on GIS, focusses on understanding GIS as a tool for developing baseline for EIA, and basic cartography and map building skills.

Many extra sessions were added to the Baseline Development Module (Attachment 1). Two sessions on fisheries issues and baseline, and separate sessions on important resource components were added to provide a more comprehensive understanding of baseline development for EIA.

Field sites and exercises for the field trips were also modified. Initial field visits were made to the Dhaka-Narayanganj-Demra (DND) and Patakhali Konoj Projects. However, as the DND was not a Flood Control Drainage and Irrigation (FCDI) project, the trainers decided on an alternative field site, the Narayanganj Narshingdi Irrigation Project, located in the same area (Attachment 2). Similarly the Patakhali Konai field site was abandoned because the river was not navigable during the dry season. Participants

were taken to Tangail Compartmentalization Pilot Project (CPP) instead. In short, the trainers used the lessons they learned from each workshop to improve the design of the program.

The team also upgraded the Trainer's Manual to better fit the revised course content and schedule. The revised lesson plans provide more comprehensive information than the previous edition.

Funding for the workshops was provided by the United States Agency for International Development (USAID). The workshops were organized by the Irrigation Support Program for Asia and the Near East (ISPAN), which worked in close collaboration with the Flood Plan Coordination Organization (FPCO) and the Department of Environment (DOE).

This report reviews and describes the accomplishments of the four skills workshops. It is divided into four parts. Part 1 and 2 introduce

the workshops and explain their objectives. Part 3 describes the training methodology, the participants, and the training team and the resource persons. Part 4 presents the workshop results, and Part 5 and 6 present the conclusions and makes recommendations.

2. Objectives

The twenty-day workshops were designed to address the objectives outlined below. The program design was based on sequential presentation of the elements in the EIA process. The program was implemented through eight modules. The objectives were to enable participants to use the EIA Guidelines developed for the water sector by FPCO in the review of EIA reports. The decision to train reviewers instead of practitioners was made because eighty percent of the participants were mid and high level professionals from the government. These officials are usually involved in reviewing project proposals. However, marginal shifts were made in the focus of the lecturettes and in the application questions used during Workshop III and IV, because participants in these workshops were drawn from both the public and private sectors. The participants were taught the key elements of the EIA process and the skills needed to review reports. This was done because private sector professionals usually do EIAs and write the reports, while public sector officials review these reports. In general, the workshop objectives were identical. Their objectives were to enable participants to:

- use the EIA Guidelines and Manual developed by FPCO and FAP 16 to study the potential environmental effects of proposed projects and to make them environmentally sound
- understand the importance of people's participation in the overall EIA process
- identify important environmental components (IECs) in order to develop the

boundary of the study area and scope of the study

- understand the methodology for developing baseline data
- understand and assess environmental impacts
- document EIA activities in reports, and manage the exchange of information with team members, project officials and local people
- understand the relation between the EIA report and the Environment Management Plan (EMP)
- understand the mechanics of EIA review as part of the planning process, and determine whether an EIA has been adequately performed according to the Guidelines and Manual.

3. Methodology

All seven workshops were designed to stimulate interaction and sharing of information among participants. Short interactive lecturettes, followed by small group activities, country-specific discussions and group presentations were included in the ninety-minute sessions. The trainers made a concerted effort to push the responsibility of learning to the participants. Learning was experience based and participant centered.

The first three workshops (including two conducted in 1993) were conducted in English. The following three were conducted in Bengali and English. Participant involvement and interaction changed dramatically after Bengali was used as a medium of instruction. They were more willing to share experiences, more free with their opinions, and more comfortable during discussions and presentations.

Team training was an integral part of the program. During the first two skills workshops conducted during Phase III, two expatriate consultants shared the responsibility for every session. During the following four skills workshops, team teaching rotated between several teams of trainers. This was found to be extremely successful, because it created a sense of controlled informality, the trainers benefitted from the added support, and participants enjoyed the variation in trainer styles and perspectives.

Each workshop lasted four weeks. They were inaugurated and ended by formal ceremonies. Special guests from FPCO, DOE, USAID, the Ministry of Water Resources and the Ministry of Forests and Environment were invited to the inaugural and closing ceremonies. The daily schedule included four ninety-minute sessions which were divided by three breaks. Two field trips to water management projects were undertaken during each workshop. Trainer debriefing sessions were routinely held at the end of each day and at the end of the workshops. They provided opportunities to the trainers to review the days activities and to evaluate and continue to improve their work.

3.1 Participants

The training program targeted professionals in GOB, NGOs, and consultancy firms that work in the water resource sector. The needs assessment conducted in 1993 had indicated that both public and private sector agencies would send mostly engineers (80%). In reality, of the total number of participants who attended the EIA skills workshops, only 33 per cent were engineers. The others were from many different disciplines (Fig.1). 16 percent were economists, 9 percent were chemists, 8 percent were fisheries specialists, 7 percent were agronomists, 6 percent were environmental specialists, 5 percent were sociologists, 3 percent were specialists in forests, 3 percent were soil scientists, 3 percent were zoologists, 2 percent were geologists and 6 percent were from other disciplines. It should be

noted that some of the professionals had a bachelors in engineering, but an advanced degree in another discipline.

Since EIA is multidisciplinary in perspective and orientation, the breakdown in the professions represented was appropriate. The needs assessment proved useful as it helped trainers to become aware of potential problems, and therefore made them more selective. Background information was collected for each group of participants (Attachment 3), and needs assessment were not conducted during the first two workshops.

Fig.2 shows that participants were drawn from 27 public and private sector organizations. Of the total number of participants (102) who attended the workshops, 76 percent were from government organizations, while 24 percent were from NGOs and consultancy firms. Since one of the primary objectives of Phase IV was to strengthen the institutional capability of GOB, it was a government decision to train more of their own professionals. Many of the organizations from which the participants were drawn have acquired the potential of developing EIA cells. Some have also developed the capability of training EIA professionals.

While women constitute only 1.1 percent of employees in technical professions in government/nongovernment organizations, (BBS 1993), twenty percent of the workshop participants were women. The enhanced role given to women in the workshops meets with the objectives of the Five Year Plan for women in development.

3.2 Training Team and Resource Persons

A major strength of the training program was that the workshops were conducted by a group of competent and experienced specialists. The group had helped develop the EIA Guidelines and Manual and field tested them in three case studies. They also participated in the TOT, and

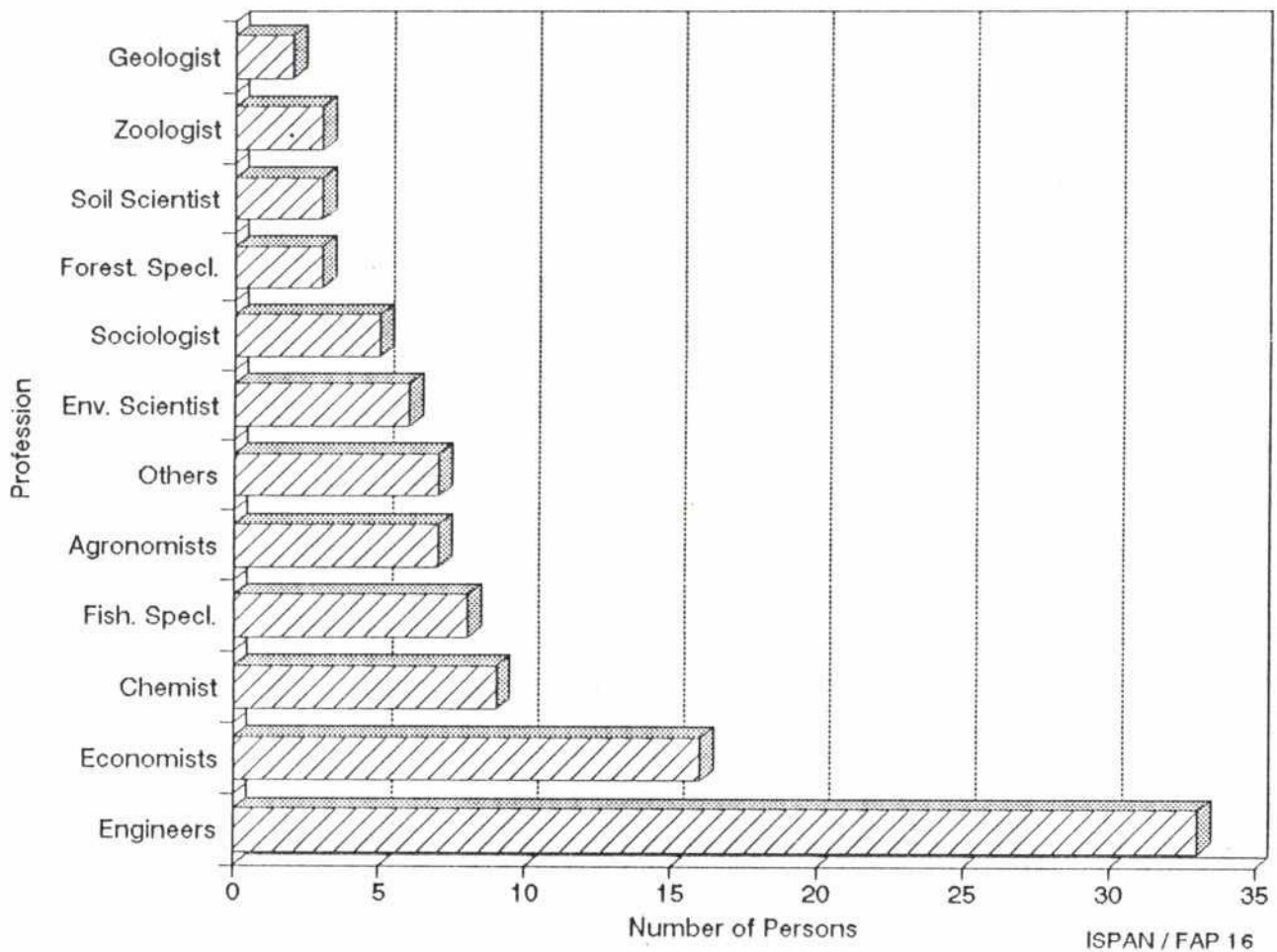


Fig. 1: Professions of Participants that Attended FAP 16's EIA Skills Workshops

during the initial phase of the program were coached and guided by a professional trainer and environmental content specialists. The core members of the team include: two geographers, a socio-economist, a plant biologist, a wildlife specialist, a fisheries specialist, and a communication specialist. The core training team included: Haroun Er Rashid, advisor to the team, Abu Md. Ibrahim, Dara Shamsuddin, Khurshida Khandakar, Mustafa Alam, Mokhlisur Rahman, Raguib Uddin Ahmad, and Asgari Ahmad.

In addition, Tim Martin, Iftexhar Ghani Choudary, Dilruba Aziz, Ahmadul Hasan, Micheal Ems, Iffat Huq, and Nasreen Islam Khan of Geographical Information Systems (GIS) FAP 19, demonstrated and explained the use and application of GIS in the EIA process. They explained the basic GIS concepts, discussed spatial data bases, and elements of mapping, and showed how they were used in the Tangail Compartmentalization Pilot Project and Charland studies.

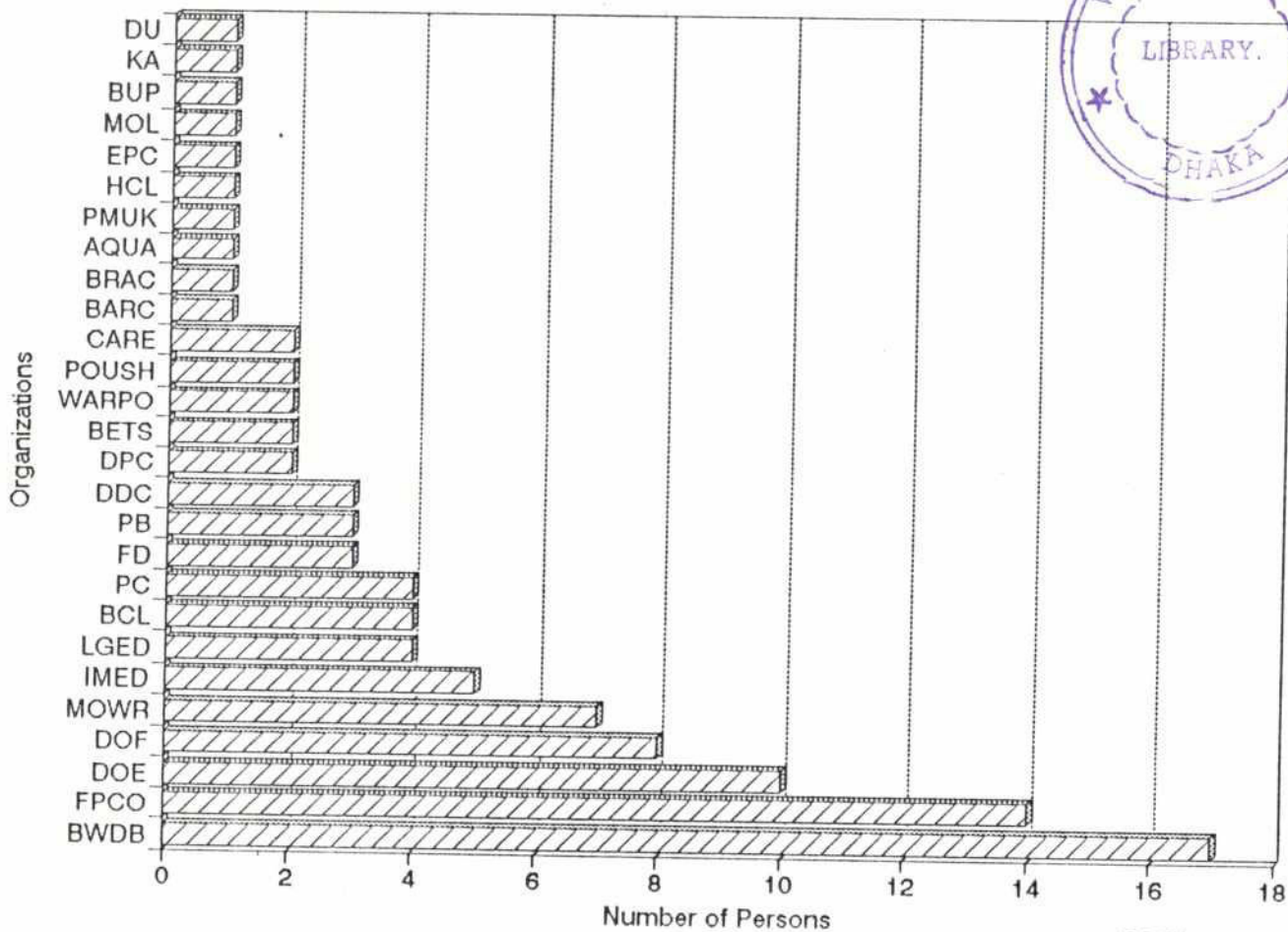


Fig. 2: Number of Participants that Attended FAP 16's EIA Skills Workshops by Organization

Many Bangladeshi specialists, nationally known for their work in water resource management and environment also served as resource persons during the workshops. They include: N. Islam of the Ministry of Water Resources, M.H. Siddiqi, A.M. Shafi, and A. Noor of FPCO, Syed A.N.-M. Wahed and M.K. Farooque of DOE. A. Nishat and F. Ahmad of Bangladesh University of Engineering and Technology, A. Khaleque of Surface Water Modelling Center (SWMC), Anwarul Islam of International Union for the Conservation of Nature and Natural Resources

(IUCN), Iqbal Ali of Bangladesh Centre for Advanced Studies (BCAS), M. Ali of FAP 20 and A. Islam of Independent University. They made presentations on major environmental issues that were vital for the participants to understand Bangladesh-specific issues related to the EIA process.

4. Training Results and Impacts

4.1 Results

A critical mid-term and post workshop activity was the analysis of trainee evaluations (Attachment 4 & 5). The evaluations were designed to reflect trainee reaction to the program, and to help the trainers to modify their methods and materials accordingly. Table 2 presents a summary of responses to major questions on the final evaluation forms of the four skills workshops conducted in 1995. It allows for comparison across the workshops. Table 3 reports the responses of participants of all four workshops taken together.

As shown in Table 2, participant response to the first question were similar across the workshops. Their response was overwhelmingly positive. All 15 in each workshop said that the workshops achieved their objectives. Fourteen out fifteen participant in each workshop maintained that they achieved more than their objectives.

For question 2 of whether the workshop met the expectations of the participants, there was an upward trend in the positive response from Workshop I to Workshop IV. While nine out of fifteen participants in Workshop I said that the workshop exceeded their expectations, fourteen out of fifteen in Workshop IV responded in the same way. Most said that the workshop achieved their expectations.

Interestingly, responses to question 3 were similar across the workshops also. While a little less than 50 percent of the participants in Workshop I said that the pace of work was appropriate, a little over 50 percent in Workshop IV made the same response.

There was a marginal difference across the workshops in participant response to the amount of information covered during the workshops. Most participants of Workshops I, II and IV said that they thought the information covered was

appropriate. However, more than half (7 out of 15) participants of Workshop III said that it was too much.

Responses to questions 5 and 6 were consistently and overwhelmingly positive. Participants across all four workshops said that the handouts were helpful and that they would recommend the workshops to others.

Table 2: Summary of Responses to the Major Questions on the Final Evaluation; Workshops I - IV.

Questions	Participant Response			
	WORKSHOP I	WORKSHOP II	WORKSHOP III	WORKSHOP IV
<i>Did the workshop achieve its objective?</i>				
More than	14	14	15	14
Achieved	2	1	0	1
Less than	0	0	0	0
<i>Did the Workshop meet you expectations?</i>				
More than	9	12	13	14
Achieved	7	1	2	0
Less than	0	2	0	1
<i>I thought the pace of work was:</i>				
Appropriate	6	8	6	9
Slow	2	0	0	0
Fast	8	7	9	6
<i>I thought the information covered was:</i>				
Appropriate	13	10	6	13
Too Little	0	1	2	0
Too Much	3	4	7	2
<i>Were the handouts helpful?</i>				
Helpful	15(2 need more)	15 (2 need more)	15	15
Marginally Helpful	0	0	0	0
Not Helpful	0	0	0	0
<i>Would you recommend the course to others?</i>				
Yes	16	12	15	15
No	0	0	0	0
No Response	0	3	0	0



Table 3: Participants Evaluation of the Skills Workshop [I - IV]
[Number of Participants/Respondents = 60]

Question	Percentage of Respondents		
	More than	Achieved	Less than
Did the workshops achieve their objectives?	93%	7%	
Did the workshop meet your expectations?	79%	16%	5%
I thought the pace of work was:	Slow	Appropriate	Fast
	3%	48%	49%
I thought the information covered was:	Too Little	Appropriate	Too Much
	5%	69%	26%
Were the handouts helpful?	Helpful	Marginally Helpful	Not Helpful
	100%	0	0
Would you recommend the course to others?	Yes	No	No Response
	95%	0	5%

Table 3 indicates that an overwhelming majority (93 percent) of the participants said that the workshops achieved more than their objectives, while 7 percent said that they achieved the objectives. A large majority (79 per cent) said that the workshops exceeded their expectations, while 16 percent said that they met their expectations. Only 5 percent said that the workshop outcome was less than their expectations. Almost half (49 percent) of the participants said that the pace of work was fast. Approximately the same number, 48 percent said that the pace was appropriate. Three per cent said that it was slow. In terms of the information covered during the workshop, more than half of the participants (69 percent) said that it was appropriate. Twenty-six percent said that it was too much, while only 5 percent said that it was too little. One hundred percent of the participants rated the handouts as helpful.

Similarly an overwhelming majority said that they would recommend the workshop to others.

4.2 Impacts

The training program has had many direct and indirect impacts. Some of the direct results were: (1) the transfer of the ownership of training to Bangladeshi professionals. Training has become institutionalized in local professionals who can continue to conduct EIA training without external assistance; (2) a Trainer's Manual has been developed and can be used for future training. The manual has been upgraded three times to meet the needs and interests of local organizations. It also uses an innovative methodology that has proven extremely successful in Bangladesh; (3) EIA capacity has been strengthened in 27 local institutions. One hundred and nine professionals

are trained in EIA. This critical group of professionals have developed the capability to accommodate environmental concerns in project planning and designs, can participate as team members of EIA study teams, and can review water sector EIA documents.

The workshops provided a forum for professionals from private and public sector organizations to exchange views and to communicate with each other. The dialogue that occurred between the groups reflected their common concerns often about common issues. This helped to bridge many differences between them and in many ways helped them to appreciate and respect their different roles and responsibilities in project development.

A major shift in attitudes in both trainers and trainees occurred as a direct result of their workshop experience. The trainers who were primarily scientists have learnt that training requires special skills and a highly coordinated team effort to be successful. The trainees have learnt that EIA is an important planning tool and needs to be incorporated into the feasibility studies of projects when they are likely to have adverse impacts. This is a major achievement. Most trainees during the initial stage of the workshops were skeptical about the need of EIA. They felt that environmental concerns were unimportant when compared to poverty issues in the country. By the end of the workshops they not only learned that environment and poverty issues are very much related, but also learned that for development to be sustainable, natural resources of the country require proper assessment and these kept within the limits to ensure sustainability. The workshops sensitized them to the importance and need of EIA.

5. Conclusion

The final evaluations indicate that the workshops not only met the expectations of the trainees, but also achieved their objectives. Although ultimate proof of this can be obtained only through

follow-up evaluation of participant performance on the job, observation of the training in action and informal discussion with the participants indicated that they had acquired a common terminology to discuss EIA problems and had learned the key concepts of the EIA process. What was also obvious from their independent evaluation of an EIA document and their individual presentations, was that they had acquired skills which would allow them to prepare and critically review EIA documents. Trainee participation was high throughout all four workshops and increased dramatically when the training was conducted in Bengali. Trainees not only enjoyed the workshops, but often stated that the workshops were unique and different from others they had attended in Bangladesh. This was largely attributed to the participative nature of the workshops and the fact that each trainee was actively involved in his/her learning.

Through all four workshops the trainees have consistently said that the pace of work was fast. A smaller percentage maintained that the information covered was too much. This is consistent and may relate to trainee educational background and experience and their ability to assimilate the information that was given. EIA is a new subject and, therefore, there may be a need to further extend workshop time in future training programs in order that even more time can be spent on difficult concepts, particularly on impact assessment, EMP and EIA review.

6. Recommendations

Many recommendations surfaced from the workshops. Some emerged from the need to achieve excellence. With each new experience, the trainers modified the course content and schedule, fine tuning them to serve the needs and interests of the participants. The trainers also felt an urgent need to institutionalize the training and to maintain the momentum they have developed. As a result their recommendations below relate to (1) future

training needs (2) the training content, and (3) curricula.

6.1 Future Training Needs

Training can become the basis for institutionalizing EIA in Bangladesh if it targets EIA team leaders, practitioners, reviewers, and builds awareness of EIA at high levels in government and private sector agencies. The attitude-change that occurs through training can help change the way the projects are planned. It can also bring about policy change so that EIA is fully integrated into feasibility studies.

The training component that has been developed under FPCO in collaboration with DOE needs to be maintained. To this end, it needs to find a home where it is permanently housed and continued.

There is a need to interact with organizations such as BUET, BCAS, BARD, North South University, Independent University, and Local Government Engineering Department (LGED) who are thinking of developing similar training programs. This will help to compare programs, ensure that duplication of effort does not occur, and to generate new ideas on how to improve the training program.

6.2 Course Content

Training courses need to be conducted that will address broad based needs. Courses, and workshops for policy makers, administrators, reviewers, trainers, practitioners, field level workers need to be developed. To this end collaboration with agencies that send participants to the training is necessary to ensure that the training given, matches their organizational need.

Future EIA training programs that target reviewers should have greater field orientation. This can be done in two ways: (1) materials and

handouts that are distributed during the workshops should be based on actual field experience, (2) if possible, during the training participants should be taken on overnight field trips in order to better acquaint them with the study area, allow them adequate time in the field, adequate time in the evening to compare notes and for discussion, and time to return to the field to further verify their findings.

For practitioner training longer periods in the field will be necessary and additional time for impact assessment will have to be provided. Practitioners' training should include (a) mid-level and senior level participants, and (b) junior and field level professionals. These professionals should be drawn from both the private and public sector.

Workshop time should be extended. Trainer fatigue needs to be taken into account when planning the training programs. Four ninety-minute sessions per day for four weeks is strenuous for both trainees and trainers. The duration of the workshop may need to be extended in the future. However, a needs assessment will have to be conducted to find out if organizations, particularly NGOs, can spare their employees for longer periods of time.

An advance TOT is needed to enhance the skills of the trainers that were not covered in the TOT, such as skills to conduct a needs assessment, develop a training plan, and develop a curriculum for a particular target group. Thought should be given to identifying a master EIA content and training specialist who can demonstrate different ways of teaching the EIA concepts. In addition, TOTs should be conducted to increase the number of EIA trainers at the national level.

6.3 Curriculum Development

There is a need to develop new curricula if training is to be extended to EIA practitioners,

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field workers, and team leaders. If the training materials have to meet the needs of the particular groups, there may be a need to review secondary material that already exists in the subject area and further field-test some of the issues and methods.

There is similar need to develop trainer manuals for all regularly recurring training workshops that will form the core curriculum for EIA training.

Translation of the Trainer's Manual into Bengali should be considered.

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ATTACHMENT 1
SCHEDULE
EIA SKILLS WORKSHOP, 1995



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SCHEDULE
EIA SKILLS WORKSHOP, 1995

Day	Time	Session
1	08:50 - 09:00	Registration
	MODULE 1: Workshop Introduction	
	09:00 - 10:00	Inauguration
	10:00 - 10:30	Break
	10:30 - 12:15	Workshop Opening
	12:15 - 12:45	Break
	MODULE 2: Introduction to EIA in the Water Sector	
	12:45 - 14:15	Need of EIA
	14:15 - 14:30	Break
	14:30 - 16:00	Habitat & Ecosystem
2	08:50 - 10:30	Place of EIA
	10:30 - 10:45	Break
	10:45 - 12:15	EIA Process
	12:15 - 12:45	Break
	12:45 - 14:45	Impacts of Structures Module Synthesis Journal
	14:45 - 15:00	Break
	15:00 - 16:30	MODULE 3: People's Participation (PP) Importance of PP
3	08:50 - 11:00	PP Methodology Module Synthesis Journal
	11:00 - 11:15	Break
	MODULE 4: Developing Environmental Baseline	
	11:15 - 12:45	Scoping & IECs
	12:45 - 13:15	Break
	13:15 - 14:45	Bounding
	14:45 - 15:00	Break
15:00 - 16:30	Interdisciplinary Nature of EIA	

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Day	Time	Session
4	08:50 - 10:30	Field Data Planning
	10:30 - 10:45	Break
	10:45 - 12:15	Socio-Economic Baseline
	12:15 - 12:45	Break
	12:45 - 14:15	Water Resource Baseline
	14:15 - 14:30	Break
	14:30 - 16:00	Land-Use Baseline
5	08:50 - 10:30	Forest & Vegetation Baseline
	10:30 - 10:45	Break
	10:45 - 12:15	Wildlife Baseline
	12:15 - 12:45	Break
	12:45 - 14:15	Fisheries Issues
	14:15 - 14:30	Break
	14:30 - 16:00	Fisheries Baseline
6	08:50 - 10:30	Hazard & Risk Baseline
	10:30 - 10:45	Break
	10:45 - 12:15	Data Analysis
	12:15 - 12:45	Break
	12:45 - 14:15	GIS
	14:15 - 14:30	Break
	14:30 - 16:00	GIS
7	08:50 - 10:30	GIS
	10:30 - 10:45	Break
	10:45 - 12:15	GIS Debriefing
	12:15 - 12:35	Break
	12:35 - 14:05	Interviewing Skill Field Briefing
8	08:50 - 17:00	F I E L D - I

Contd...

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Day	Time	Session
9	08:50 - 10:30	Field Debriefing
	10:30 - 10:45	Break
	10:45 - 12:45	Field Debriefing Module Synthesis Journal
	12:45 - 13:15	Break
	MODULE 5: Impact Assessment	
	13:15 - 14:45	Seasonality Model
	14:45 - 15:00	Break
10	15:00 - 16:30	Trend Analysis
	08:50 - 10:30	Identify & Assess Impacts
	10:30 - 10:45	Break
	10:45 - 12:15	Impact Evaluation
	12:15 - 12:45	Break
	12:45 - 14:15	Impact Evaluation
	14:15 - 14:30	Break
11	14:30 - 16:00	Impact Evaluation
	08:50 - 11:00	Assess Alternatives Module Synthesis Journal Mid-term Evaluation
	11:00 - 11:15	Break
	MODULE 6: Environmental Management Planning (EMP)	
	11:15 - 12:45	Introduction to EMP
	12:45 - 13:15	Break
	13:15 - 14:45	Mitigation & Enhancement
12	14:45 - 15:00	Break
	15:00 - 16:30	Compensation
	08:50 - 10:30	Disaster Management
	10:30 - 10:45	Break
	10:45 - 11:45	Monitoring
	11:45 - 12:00	Break
	12:00 - 13:00	Legislation
12	13:00 - 13:30	Break
	13:30 - 16:30	Institutional Setting



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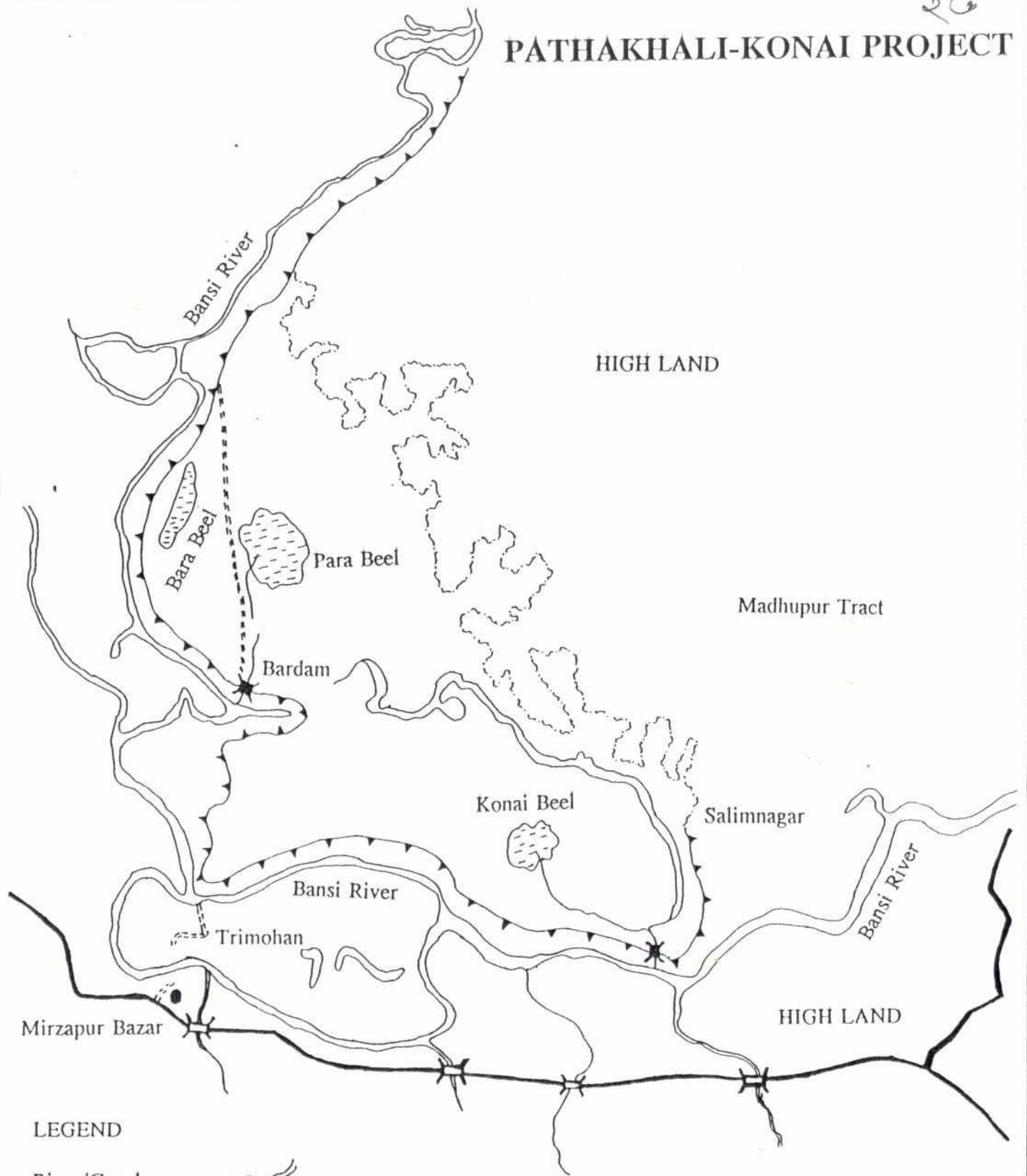
Day	Time	Session
13	MODULE 7: Documentation, Communication & Draft Report	
	13:00 - 14:30	Documentation & Communication
	14:30 - 14:45	Break
	14:45 - 16:45	Draft Report Module Synthesis Journal
	16:45 - 17:00	Field Briefing
14	08:50 - 17:00	F I E L D - II
15	08:50 - 10:30	Field Debriefing
	10:30 - 10:45	Break
	10:45 - 12:45	Field Debriefing Module Synthesis (EMP) Journal
	12:45 - 13:15	Break
	MODULE 8: EIA Review	
	13:15 - 14:45	EIA Review Mechanism Introduction to Document
	14:45 - 15:00	Break
	15:00 - 16:30	Review of Document
16	08:50 - 10:30	Review of Document
	10:30 - 10:45	Break
	10:45 - 12:15	Review of Document
	12:15 - 12:45	Break
	12:45 - 14:15	Review of Document
	14:15 - 14:30	Break
	14:30 - 16:00	Review of Document

Contd...






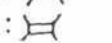

Day	Time	Session
17	08:50 - 10:30	Presentation & Discussion
	10:30 - 10:45	Break
	10:45 - 12:45	Presentation & Discussion Module Synthesis Journal
	12:45 - 13:15	Break
	13:15 - 14:45	Guest Speaker: Secretary Ministry of Water Resources
	14:45 - 15:00	Break
	15:00 - 16:30	Workshop Synthesis Post Test Evaluation
18	13:30 - 14:30	C L O S I N G
	14:30 - 15:30	Lunch

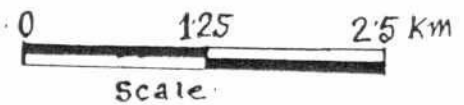
ATTACHMENT 2
MAPS: FIELD VISITS

PATHAKHALI-KONAI PROJECT

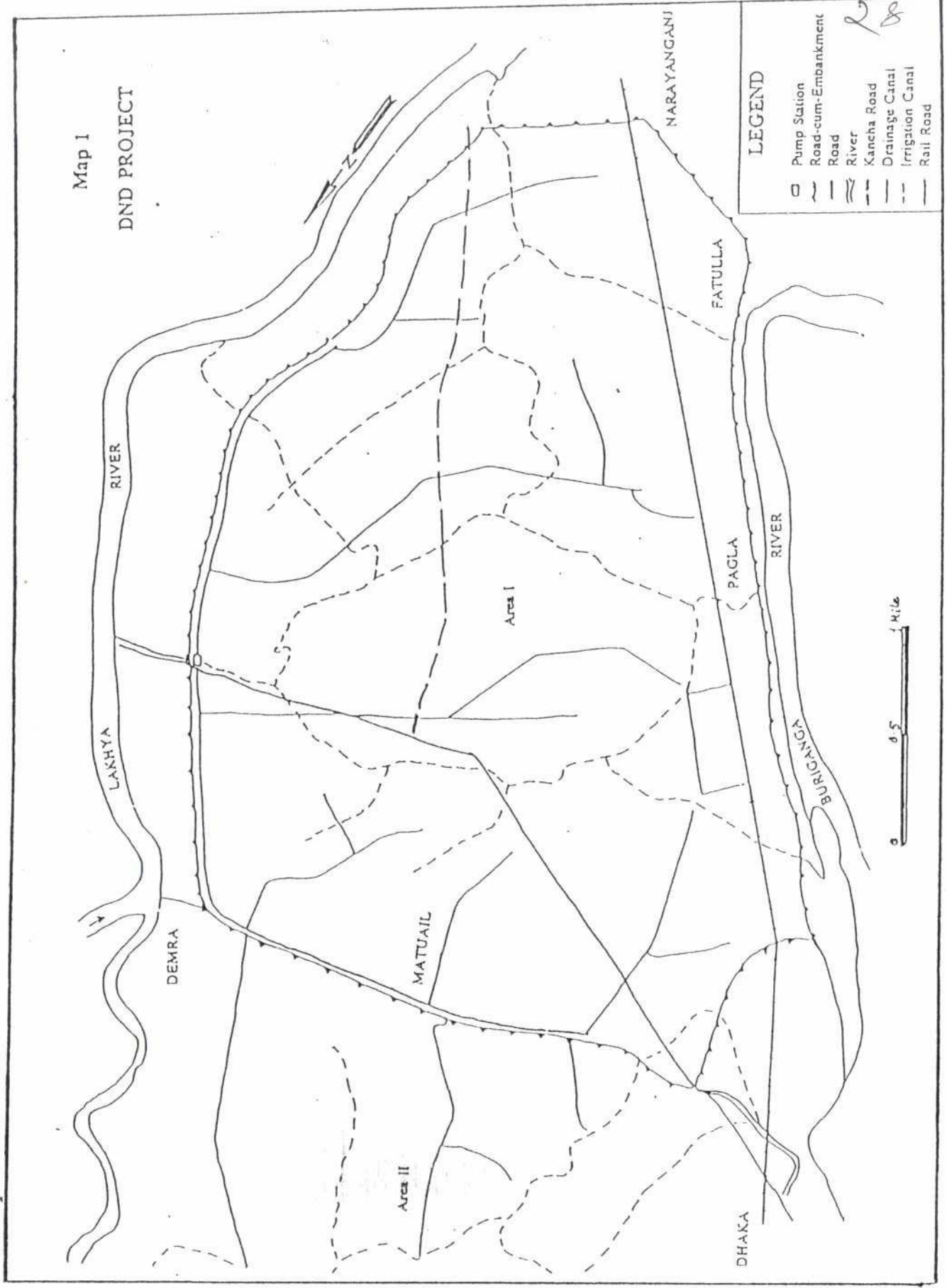


LEGEND

- River/Canal : 
- Beel : 
- Embankment : 
- Metal Road : 
- Kutchha Road : 
- Sluice Gate : 
- Bridge/Culvert : 



Map 1
DND PROJECT



LEGEND

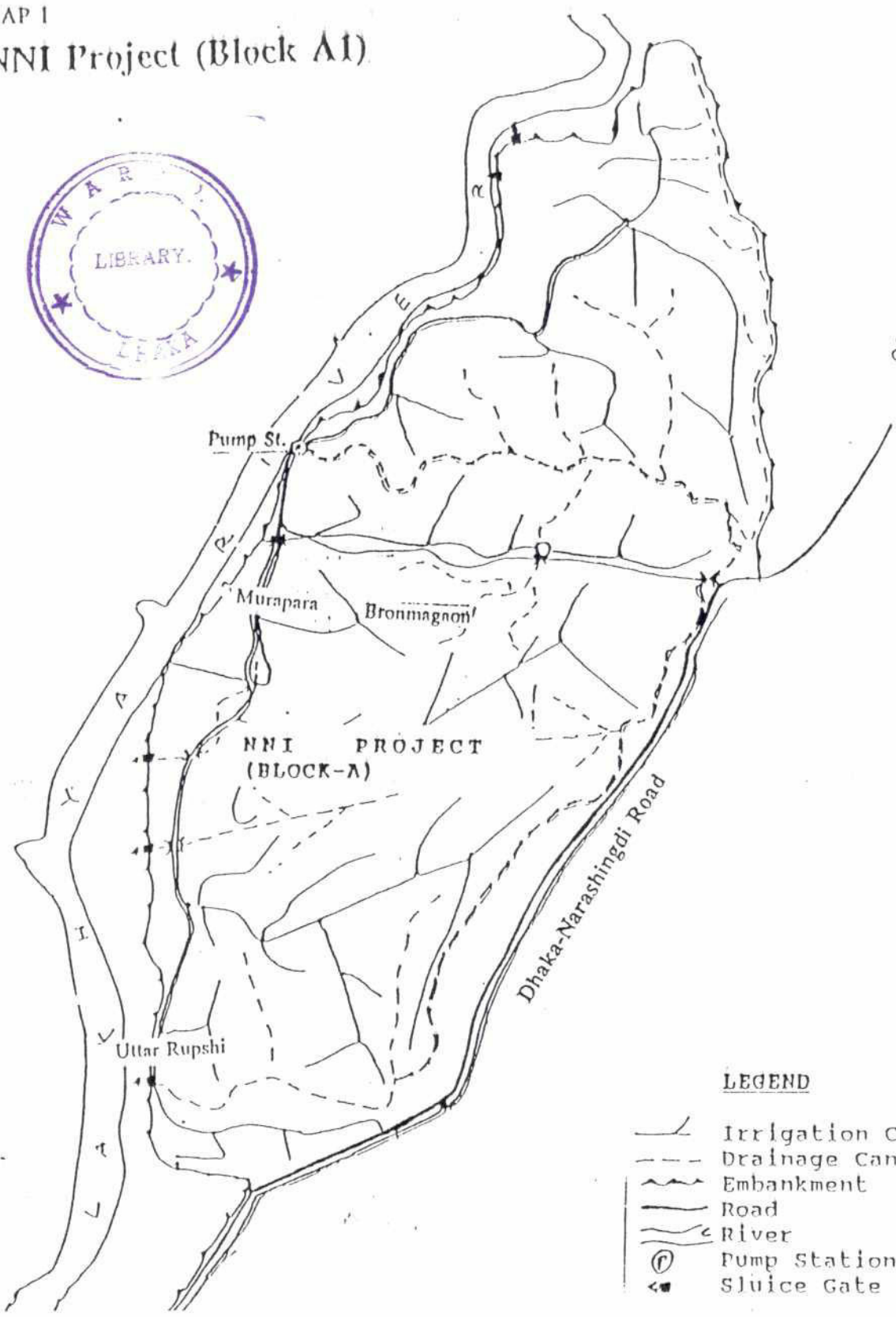
	Pump Station
	Road-cum-Embankment
	Road
	River
	Kancha Road
	Drainage Canal
	Irrigation Canal
	Rail Road



MAP I
NNI Project (Block A1)



Km.
0 04 08



LEGEND

- Irrigation Canal
- Drainage Canal
- Embankment
- Road
- River
- Pump Station
- Sluice Gate

ATTACHMENT 3
PARTICIPANT BACKGROUND
QUESTIONNAIRE



**PROPOSED EIA TRAINING PROGRAM
PARTICIPANT BACKGROUND QUESTIONNAIRE**

The purpose of this questionnaire is to help us collect information so that we can adjust the curriculum to your levels of experience and areas of interest. Please answer the questions listed below.

1. Name _____ Date _____

2. Phone Number: Office _____
Home _____

3. Age in Years. Between () 20-30 yrs.
 30-40 yrs.
 40-50 yrs.
 50-60 yrs.

4. Please list the last two academic degrees you received, the names of the institutions you received them from, and the year of graduation
 - a. Degree _____ Institution _____
Year of Graduation _____
 - b. Degree _____ Institution _____
Year of Graduation _____

5. Name of Organization you are working for _____

6. Position in Organization _____

7. What is your Profession? _____

8. What responsibilities do you have in your present position?

9. To whom do you report?

Name _____

Designation _____

Telephone Number _____

10. How long have you worked in your present organization?

Years _____ Months _____

11. Have you done any environmental planning, social development, project reviews, project planning or environmental impact assessment.

() Yes () No

If yes, specify the number of years in each

	years
Environmental management	_____
Environmental planning and social development	_____
Environmental impact assessment	_____
Project review	_____
Project planning	_____

12. What exactly did you do in:

1. Environmental Management _____

2. Environmental Planning and Social Development _____

3. Environmental Impact Assessment _____

4. Project Review _____

5. Project Planning

13. What are your reasons for wanting to take this training course?

14. How do you see this training helping you deal with problems that you face in your work at the present time?

ATTACHMENT 4 & 5
MID-TERM & FINAL EVALUATION
EIA SKILLS WORKSHOP, 1995



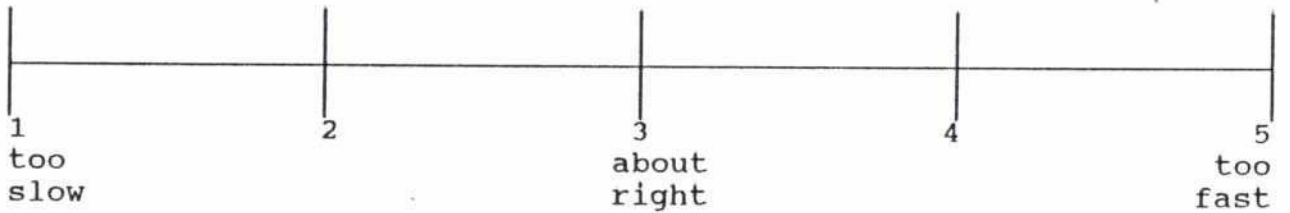
02

4. Are you beginning to enhance your skills in the areas specified below. Put a tick mark.

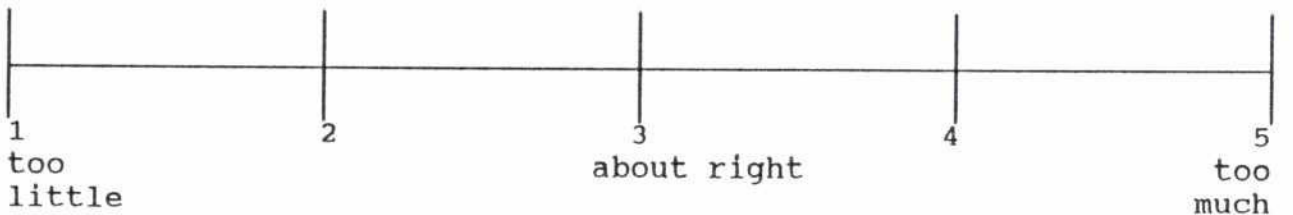
	Not much	Somewhat	Very much
Recognizing the need of EIA in project development			
Recognizing the components of the EIA process			
Appreciating the importance of habitat and ecosystem			
Understanding the concept of scoping			
Understanding the concept of bounding			
Using scoring and weighting to evaluate impacts			

5. I would like to learn more about:

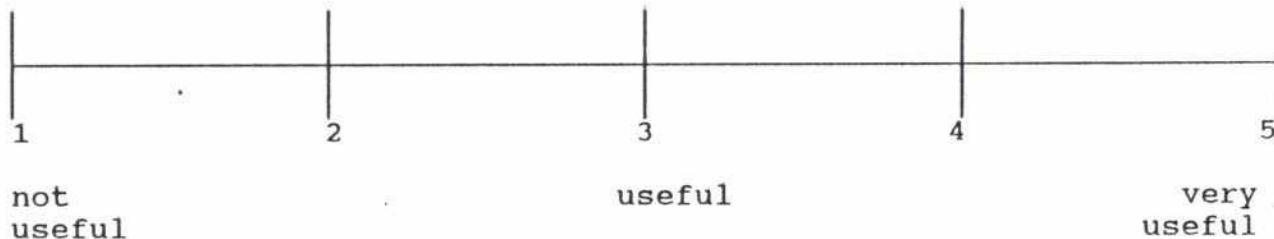
6. I think the speed of the work is:



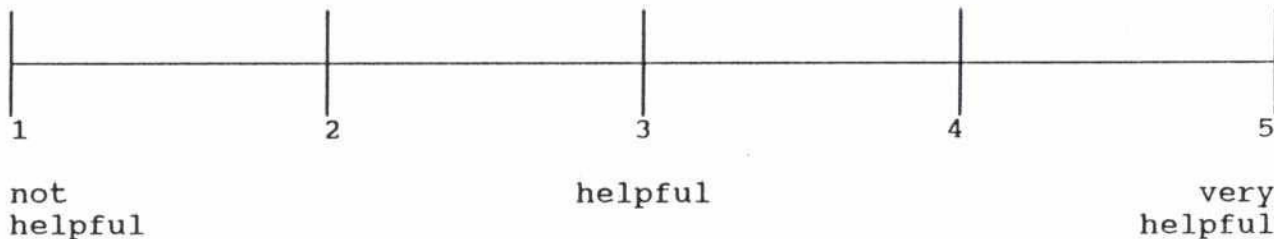
7. I think the amount of information covered is:



8. I think the exercises are:



9. I think the handouts are:



10. I think the trainers could do more of:

11. I think the trainers could do less of:

12. I think the facilities are:

13. Other Comments:

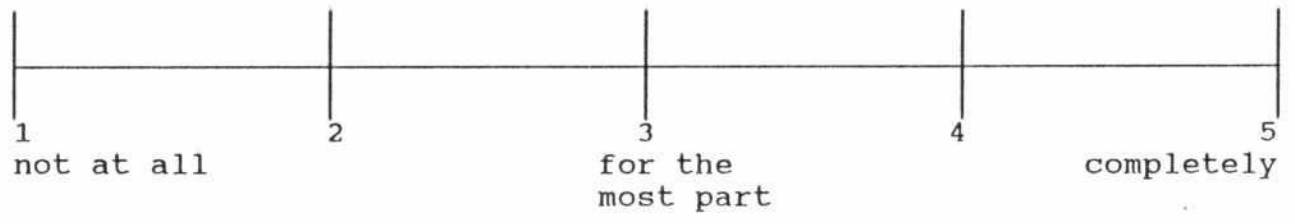
EIA SKILLS WORKSHOP, 1995

FINAL TRAINING EVALUATION

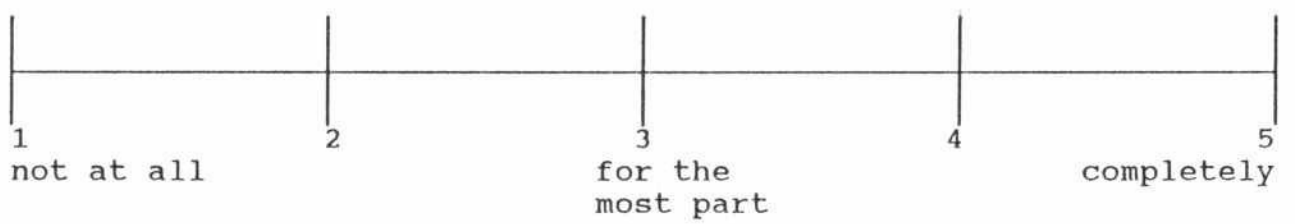
In order to help us design future workshops that respond to your needs, we would like to ask you to share your thoughts and feelings about the workshop you have just completed.

Instructions: Please mark an X on the scale provided, or use the space provided for your comments.

- 1. Did the workshop achieve its objective of helping you to use the Guidelines to learn about EIA?



- 2. Did the workshop meet your expectations?



- 3. How do you think you will apply the lessons you have learned in the workshop?

- 4. What area(s) did you learn the most about?

- 5. What area(s) did you learn the least about?

6. Module by module which topics would you add, delete, emphasize more, emphasize less.

Module 1: Introduction of EIA

Module 2: People's Participation

Module 3: Developing Environmental Baseline

Module 4: Impact Assessment

Module 5: Environment Management Plan (EMP)

Module 6: Documentation & Communication & Draft Report

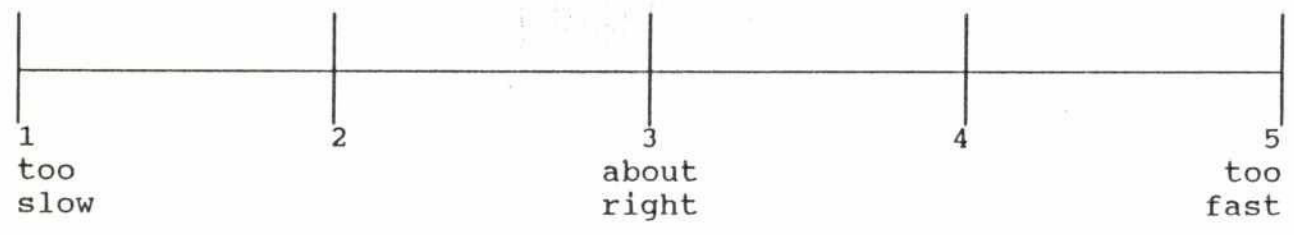
Module 7: EIA Review

7. Which techniques of instruction (lecturettes, practical exercises, group discussions, case study, field trips, journals) did you learn:

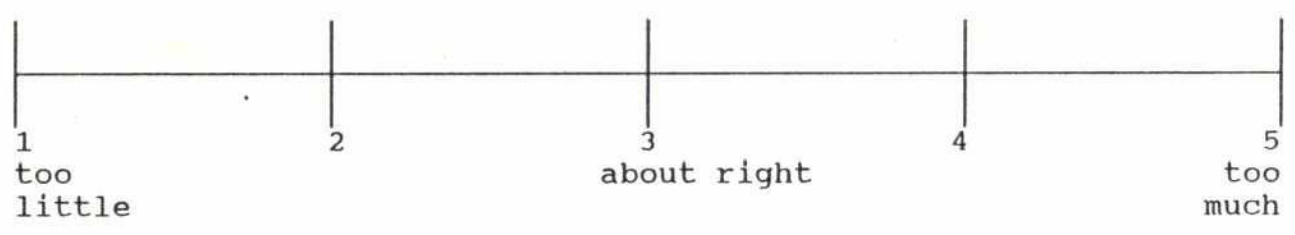
a. The most from:

b. The least from:

8. I thought the speed of the work was:



9. I thought the amount of information covered was:



10. Were the handouts helpful? If no, why not?

11. In what ways could the instructors improve their performance?

12. Would you recommend the workshop to others?

13. Please add other comments you would like to make about any aspect of the workshop.

